

Industrial Development

THE NATIONAL GUIDE TO INDUSTRIAL PLANNING AND EXPANSION



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Harvey J. Finison (right), manager of Raytheon's Semiconductor Division, reviews plans for the division's new plant at Lewiston, Maine, with Charles D. Bradrick, new plant projects manager. How Raytheon plans for growth is told on page 13.

AREA FEATURES

The Niagara Frontier—
a new era of
growthPage 17
The Canadian Progress
EditionPage 33

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C. E. English, General Freight Agent, Oklahoma City

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Industrial Department 134

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INDUSTRIAL DEVELOPMENT

and manufacturers record

BPA

Volume 128 August 1959 Number 9

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IN **YOUR** **MIR...**

The Dewitt Hotel in Lewiston, Maine, is one of those venerable structures with sagging joists, claw-footed tubs, and lobster en casserole that is out of this world. Last month we enjoyed the inn's hospitality for a noteworthy occasion—announcement of the Raytheon plant reported elsewhere in this issue.

What impressed us most was the *attitude* of all concerned. The Raytheon folks were obviously pleased with their plans, state officials were jubilant, and local leaders were more excited than New Englanders like to admit. (At right, Maine official Richard Hebert congratulates Lewiston Mayor Romeo Boisvert.)



Hebert-Boisvert

We were struck, too, with the fact that there are really two New Englands—the urban areas of the South, and the rural North. Nosing our Cessna north from Boston we quickly left the urban sprawl and entered the area of beach resorts, then the lakes and forests. Above Portsmouth we saw country that might have been a thousand miles from a big city. Only the Maine Turnpike reminded us that population was not far away.

This sense of remoteness from the big-city hubbub was intensified when we left the Auburn-Lewiston strip and flew the "hump" to the West. Our course took us straight across the rugged White Mountains where we ducked under low ceilings to scan the facilities atop Mount Washington.

Closing our flight plan at Barre-Montpelier, we found a reception committee of Clifton Miskelly and Roland Vautre, Vermont Development Commission officials. Here we got another story of a new blue-chip plant being situated in the snow-country. This was IBM's new operation located in Charlie Townsend's handsome new building at Burlington.



Miskelly

The part of the story that interested us was IBM's cute use of punched cards to select supervisory personnel for the new unit. They just ran through the cards until they'd found about 40 people with the proper qualifications who had listed *skiing* as their hobby. When these people were told about Stowe and other Vermont ski areas, the response was almost 100 per cent.

Another New England spot where development news is being made is Rhode Island. The new administration seems to have gained the confidence of the business community and there are significant signs of progress. Textron Chairman Royal Little foresees 10,000 new jobs within five years. Universal Controls is building a new 60,000 square foot unit in the state.

At lunch in Providence, the aggressive new development director, Ad Schmidt, told us about extensive plans for financing new, modern industrial buildings, explaining "In the past Rhode Island depended too much on selling space in the old vacant multi-story textile mills."

Competition grows—these signs of increased development effort in New England are typical of all sections of the nation. Everywhere, organizations are making a greater effort to attract your new plant—increasing the odds that you'll be able to find the right spot with less difficulty than ever before.

And, it's a certainty that the efforts of these local development groups will not go unrewarded. For in the next decade you are going to be building new plants as never before. You're going to need thousands of new sites every year.

This picture of future growth was delineated by Consultant Lionel D. Edie at a recent Session of the National Industrial Conference Board in New York. Looking at the coming ten years, Edie predicts that the top growth industries—those growing 100 to 200 percent—will include guided missiles and products related to outer space, office equipment and computers, electric energy, air transportation, electronics, aluminum, drugs, plastics, residential building, and research and development.

The second ten growth industries—expected to gain 50 to 90 percent—are, according to Edie: business services, engineering services, water and sewerage, state and local governments, educational services, natural gas, medical services, chemicals, communications, and construction.

The third ten, expanding 40 to 55 percent, include services, electrical machinery, scientific instruments, retail food trade, printing and publishing, stone-clay-glass, petroleum, legal services, retail trade, and amusements. In the fourth group—to grow 25 to 40 percent, Edie lists paper and allied products, freight transportation, Federal government, non-electrical machinery, transportation equipment, rubber, banking, repairs, personal services, and fabricated metals.

* * *

One of our pet peeves is that so many developers overlook the importance of the company airplane in site planning. It's a fact that today there are more than 25,000 company planes in operation. And it's a good bet that most of these planes belong to the same alert firms that are planning new units. The State of Alabama apparently is out front in seeing the handwriting on the wall, for the state reportedly is offering to build a 3,000 foot paved strip adjacent to your plant if you'll locate in the state.

* * *

Swinging around the Great Plains recently we found another group of eager developers who are making a strong bid for your attention. On a pleasant weekend in Colorado Springs we rode horseback around the site of the new Pikes Peak Industrial Park which has one of the most breath-taking views we've seen for an industrial area. In Topeka we heard official John Sticher tell of his statewide community program, and in Lincoln Charlie Price outlined his plans for visiting you in your offices to tell about Nebraska opportunities.

In Jefferson City, Missouri, executive Jim Idol gave us an earful of data on new iron ore exploration. "This will be the biggest thing in Missouri in 15 years—maybe bigger than Mesabi," he said. In Oklahoma City we found energetic young Max Genet getting set to launch a big new drive for industry, and in Arkansas Bill Rock was taking off for new discussions with expansion-minded executives on the West Coast.



Idol

In all, we'd guess that this is the busiest summer yet for planned industrial expansion. More grist for the mill!

—H. M. C.

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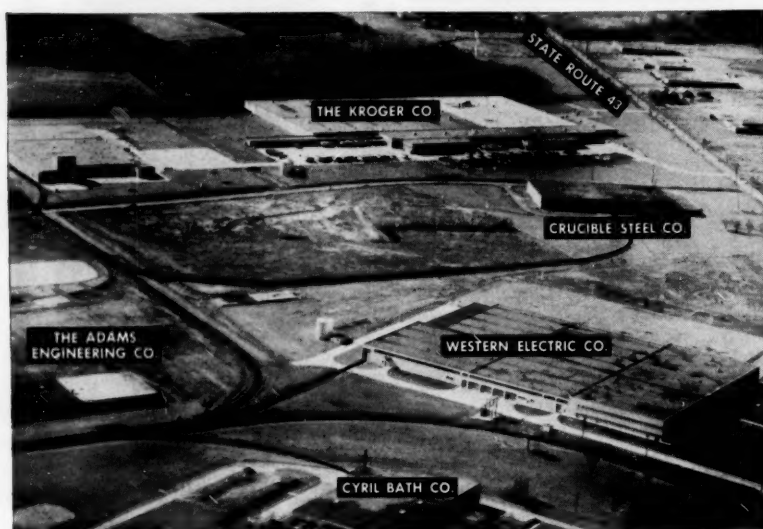
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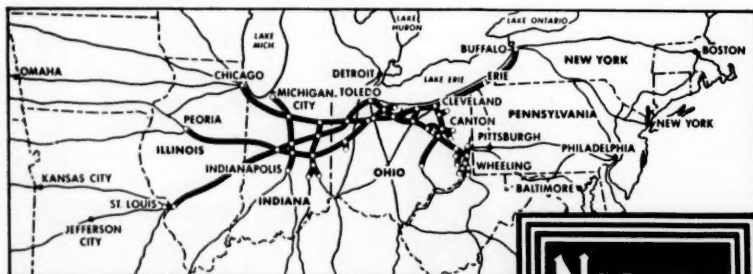
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SIRS: I have just received the April issue of *INDUSTRIAL DEVELOPMENT* and although I had previously some direct mail covering the proposed "Registered Community Audit," the lead article in this month's magazine reminded me that I should offer comment on the subject.

For many years I have advised communities, preparing brochures or other literature for direct mail contact with prospects, not to include any considerable statistical detail. Inclusion of such data may often preclude the possibility of the community's being considered by an industrial prospect. I quote from page 9, second paragraph of the second column of the subject article:

"Once a firm has screened out the communities which obviously do not meet specifications, direct contact will undoubtedly be made and more extensive information will be obtained."

Although no distortion of the truth or any misrepresentation of facts should be offered a prospect, I believe it is to the advantage of many communities to have the opportunity of bringing the prospect into the area before he is given sufficient data to arbitrarily eliminate a very promising location. Innumerable times I have worked with prospects who have indicated that they could not consider a particular type of site, building or location; yet, after considerable search of the properties apparently most appropriate, I have found such prospects better satisfied, better suited, in a situation not meeting their original specifications. Anyone long practised in the field of industrial development work, directly with prospects, would, I believe, substantiate this statement.

Once a prospect has felt, tasted, seen the intangible "atmosphere" of a community, he may frequently, with due consideration of all the facts then revealed to him, rationalize location here rather than in a community which more specifically met his original stated requirements.

I believe every community should carefully catalogue its assets and liabilities, but that the presentation of these should be made at the point in the progress of a sales effort which permits their best reception. If I may use a homely illustration, one might select an automobile by looking at its styling before determining the cubic inch displacement. If properly sold that the vehicle has many assets outweighing a presumed disadvantage, the sale may be completed. . . .

ROBERT P. LEE, Manager
Area Development Department
Connecticut Light & Power Co.
Berlin, Connecticut

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CHAMBER OF COMMERCE

404 West Pine Street, Lodi, California

LETTERS

SIRS: Thank you for the information you recently sent us on the Registered Community Audit. A study of this material indicates that it would be desirable that each of our field offices get copies of it. We frequently receive requests from communities for information and assistance concerned with obtaining new industries for them. Our own program is based on building from within primarily concerned with expanding new industries from within.

Any community which will gather the necessary information to properly file for your Registered Community Audit will have made a good start towards industrial development.

May we have 50 copies of the four page print entitled "The Registered Community Audit." Also 50 copies of the mimeographed sheet entitled "National Community Audit Registry" and 50 copies of the Form 4159 "Registered Community Audit" blank . . .

ERNEST W. REISNER, chief
Production Assistance Division
Small Business Administration
Washington 25, D. C.

The Blue Book

SIRS: I have just looked over your very well done BLUE BOOK OF SOUTHERN PROGRESS and my eye was caught by a consumer income of \$1,654 million for Jefferson County, Kentucky.

How do you define consumer income? If your concept is similar to personal income as used by the U. S. Department of Commerce, the 1958 estimate appears to be too high.

I'm interested in what you can furnish as to concept and method of estimating.

DAMON W. HARRISON, Director
Research & Industrial Devel.
Louisville Chamber of Commerce
Louisville, Kentucky

► Consumer Income as applied in the BLUE BOOK is very similar, but still somewhat different from U.S.D.C.'s Personal Income. The two data are derived by different methods, but, as you deduce, should parallel each other closely.

BLUE BOOK Consumer Income is the amount that would normally result from the industrial and government income originating in the area or community. It is based upon the business volume of the area, plus government payments which are not included in BLUE BOOK statistics.

As you already know, U.S.D.C.'s Personal Income is based upon Internal Revenue data and include incomes derived from other areas than the one immediately under observation. In other words, interest on money or dividends on stocks earned outside the area would be included.

These variations naturally cause differences between the results of the two processes, but these differences should not be large; otherwise one or the other of the two estimates would be in error. In making comparisons, it would be well to bear in mind that 1958 was a "recession" year and incomes would have been higher except for this fact.

When PEOPLE
make
the
difference—
the
decision
is
NORTH CAROLINA



INDUSTRIALIST HABER (R) DISCUSSES
EMPLOYEE SUGGESTION.

INTEREST - INITIATIVE - Industrial executives in North Carolina are repeatedly surprised by the way North Carolinians identify themselves with the company for which they work. Employee suggestions often lead to new techniques which increase production and improve quality. This typical opinion is expressed by Richard Haber, President, The Hadley Corporation:

"Employee recommendations have led to more efficient operations and higher production."

For prompt and confidential site information contact Wm. P. Saunders, Director, Department of Conservation and Development, Raleigh, North Carolina.

NORTH
CAROLINA

The availability and price of fuel for energy are major factors in plant site selection. In this report an expert in the field presents facts about the nation's coal reserves and the advantages coal offers as a source of energy.

THE CASE

By Tom Pickett

Executive V.P.

National Coal Association

ENERGY is the heart of most industrial operations, and the largest single cost in developing energy is fuel. High on the list of major factors to be considered in picking a plant site, therefore, is the present and future availability of an economical fuel supply. This is true whether the plant generates its own energy or purchases it from a utility.

All three fossil fuels—coal, oil and natural gas—are generally available in most parts of the country, particularly in the East and Middle West. However, they often differ widely in cost—and these costs may change in the future. Important savings may result from selection of a plant site to take advantage of the most economical fuel and installation of modern equipment to handle and consume it.

Calculations of fuel economy must extend for the expected life of the plant. Installing equipment to consume only the fuel which is cheapest at the moment may “marry” the plant to that energy

source long after increased price makes the fuel a burden. In such a case, the only alternative is boiler room conversion, which can involve heavy expense. In short, not only current prices but long-term economical supply of the various fuels must be considered. Equipment design today should incorporate all fuels available in the plant's area.

Bituminous coal has abundant reserves for long-term availability. Proved reserves of oil and gas are measured in decades; immediate reserves of coal are measured in centuries. The Department of the Interior says the nation has 237 billion tons of coal (a 500-year supply at present production rates) which could be mined at or near present prices. Another 500-year supply is available at $1\frac{1}{4}$ to $1\frac{1}{2}$ times present prices.

This ample supply, plus price stability, gives coal an important advantage over its competitors. Though the oil and natural gas industries have been tapping new reserves, they are forced to go farther and deeper to find them—at

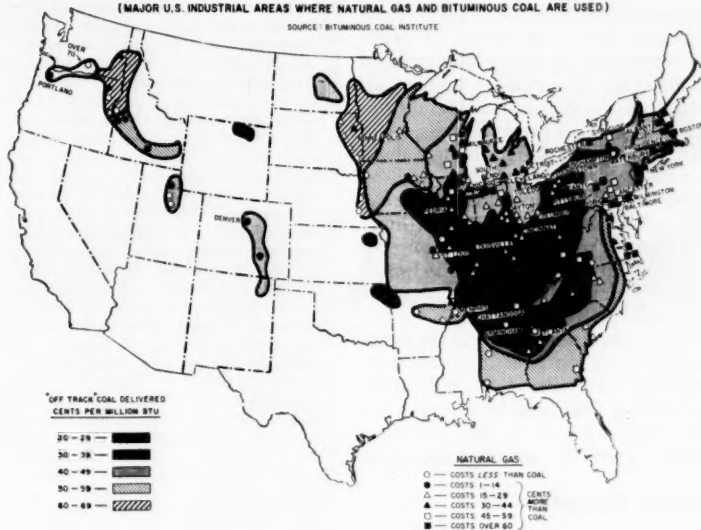
COMPARATIVE "OFF TRACK" FUEL COSTS

COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL

COAL vs NATURAL GAS—1958

(MAJOR U.S. INDUSTRIAL AREAS WHERE NATURAL GAS AND BITUMINOUS COAL ARE USED)

SOURCE: BITUMINOUS COAL INSTITUTE



FOR COAL

sharply rising expense. The price of natural gas at the well increased more than 82 per cent from 1948 to 1958; the price of crude petroleum at the well went up 20 per cent. In contrast, the average price of coal f. o. b. mine in those years increased only one penny per ton—a rise of 0.2 per cent.

Furthermore, oil and gas have so-called superior uses which are rapidly cutting back their availability as industrial boiler fuels. W. M. Elmer, president of Texas Gas Transmission Corp., said in a speech to the National Coal Association this year that the natural gas industry has already priced itself out of the market in much of the country as a supplier of fuel to electric utility plants. Mr. Elmer continued: "I am confident that we will continue to price ourselves out of more of the market, even to the extent of power generation in many of the gas-producing states. I do not think that this time is very far off; certainly in the period of the next ten years, and probably in a shorter

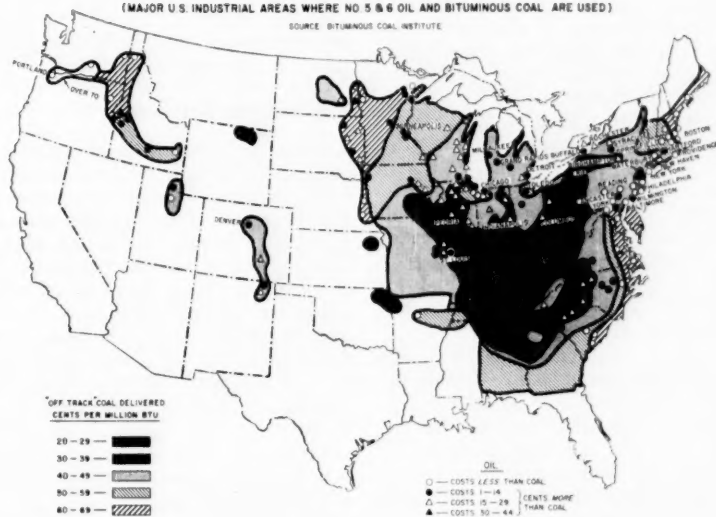
COMPARATIVE "OFF TRACK" FUEL COSTS

COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL

COAL vs NO 5 & 6 OIL—1958

(MAJOR U.S. INDUSTRIAL AREAS WHERE NO 5 & 6 OIL AND BITUMINOUS COAL ARE USED)

SOURCE: BITUMINOUS COAL INSTITUTE



CASE FOR COAL

period of time."

The oil industry finds it profitable to produce the maximum of motor fuel and lubricants from each barrel of crude petroleum, leaving only a minimum of residual fuel oil suitable for heavy industrial use. True, residual fuel oil imported from Venezuela has displaced coal under many industrial boilers along the Atlantic Coast, despite the peril of relying on a fuel supply which would be cut off in national emergency; however, imports of this fuel are now restricted to the 1957 rate and it would be doubly unwise for a new plant to count on it.

The superior uses of coal, on the other hand, do not even dent its long-range availability as boiler fuel. The high-grade coking coal used by the steel industry, for example, is not the type generally used for steam generation.

Economy Comparison

Bituminous coal shows a margin of economy over competitive fuels in 75 per cent of the nation's major industrial areas. The accompanying maps show comparative fuel costs throughout the nation. They are based on prices for off-track or truck-delivered coal. Obviously, shorter hauls mean greater economy; most manufacturing areas lie relatively close to producing coal fields. In addition, large reserves west of the Mississippi are scarcely tapped.

Major producing coal fields lie in the Appalachian area and in Illinois, Indiana, Ohio, Western Kentucky, Utah, and Colorado. Many other states are also coal producers, and North Dakota has important lignite deposits.

In all, coal is readily available in 44 states by rail, truck, inland waterway, coastwise shipping, or a combination of these carriers. More than three-fourths of the nation's coal moves by rail; if a plant can be located on a rail siding, single handling reduces fuel cost. A waterside plant may gain important savings from delivery of coal by barge or ship. Some 40 per cent of the major industrial markets are served directly from the mine by truck. One large electric generating plant in Ohio gets its coal from the mine 108 miles away by pipeline — an idea being seriously studied by other large users.

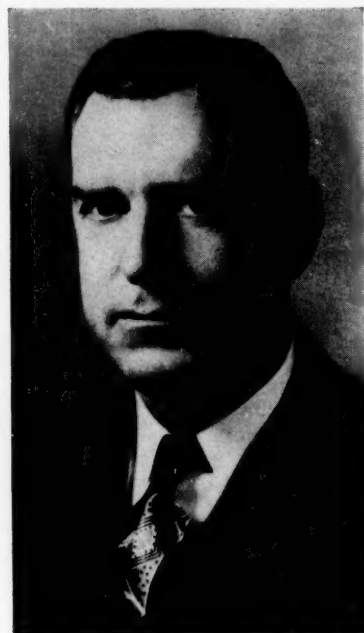
Multiple fuel transportation facilities for coal should be a significant factor in plant location. A break in a pipeline many miles away can interrupt natural gas deliveries; coal shipments can be rerouted. With a choice of transportation facilities, plant storage can be de-

ABOUT THE AUTHOR

Tom Pickett, executive vice president of the National Coal Association, has been an active spokesman for the bituminous coal industry in Washington since July 1, 1952, when he resigned from Congress to accept his position with NCA. Mr. Pickett has been a frequent witness for the coal industry before congressional committees and has taken active leadership in furthering the interests of NCA members in many fields. The Association represents producers of more than two-thirds of the commercially mined bituminous coal in the United States.

Mr. Pickett, a lawyer, served four years as county attorney of Anderson County, Texas, and ten years as district attorney for the Third Judicial District of Texas. He was elected to Congress from the Seventh District of Texas in 1934 and served continuously until he joined NCA in 1952.

He was born in Travis, Texas in 1906, and was educated in the public schools and the University of Texas. He is married to the former Alice Louise Watson. They have two daughters.



signed to handle the most economical load unit (truck, car or barge) in accordance with operating requirements.

The bituminous coal industry is helping its customers to get maximum economy from coal in many ways. The long-term supply contract, for example, enables producers to make sound investments in mining and preparation equipment which lower costs, and these savings are shared with the consumer. Modern preparation plants clean, crush, size and dust-proof coal to the exact specifications of any consumer.

To reduce the capital investment required for coal-fired plants, some firms now lease their boiler room equipment rather than buying it outright.

Engineering Services

The coal industry's sales engineering service, Bituminous Coal Institute, works with plant management and with architects and consulting engineers to insure that the economies and advantages of coal are properly considered in the planning of new plants or the modernization of existing boiler rooms. BCI, an affiliate of the National Coal Association, has 19 engineers in the field, plus a headquarters staff in the Southern Building in Washington, D. C. It offers free fuel cost analyses, guide specifications, boiler room layouts and case histories to show factually the advantages of burning coal.

Comparative costs of fuels can be determined only by some common denominator such as cost per unit of developed energy.

Fact Finding

BCI can furnish facts on fuels for any given site in coal-consuming territory. It can show which fuels are available, which are most economical, and for coal it can show which coals have a mine price or freight rate advantage for a particular site.

Once a site is selected, BCI can suggest the best coal handling and combustion equipment for the plant; however, BCI does not take over the job of consulting engineer. It recommends employing a competent consultant; the consultant will be furnished with information.

Use of modern equipment helps realize the maximum economy from coal. Too often, salesmen for other fuels—and even uninformed architects and engineers—compare operating costs of fluid fuels with those of coal burned in obsolete equipment. Modern, trouble-free, automatic coal equipment is rugged, efficient, and capable of giving the consumer the most for his fuel dollar.

A request to the Washington headquarters of Bituminous Coal Institute or one of its field offices will bring a trained combustion engineer to compute your fuel requirements and costs. The service is free.

LEADERSHIP IN ACTION!

In this report adapted from a talk given in Washington at a National Conference on Metropolitan Growth, the president of the Chamber of Commerce of the United States stresses that opportunities for accelerated industrial expansion depend largely upon the quality of leadership provided by business and industry at the community level.

By William A. McDonnell

WE must recognize the urban problem as one of the greatest economic and social influences of the 20th century.

Within the next few years, our national landscape is going to be transformed as emphatically as it was transformed by the western migration in the 19th century. In those days, our people fanned out from the cities to establish new communities and homesteads on virgin soil. We threaded railways through the fabric of the land and linked Atlantic ocean ports with Pacific ocean ports.

A hundred years ago, we had all the room in the world. Our problem was to fill it up.

Today, our problem is one of congestion in metropolitan areas.

Historians, economists and sociologists are still discussing the influence of the western trek.

I hope that their counterparts in the year 2058 will be discussing what we do in this day and age with equal admiration. I am sure they will if we do

our jobs one half so well as our forebears did their jobs a hundred years ago.

We have advantages which they did not enjoy. People in general were not conscious they were building a continental empire. They had to operate by rule of thumb.

On our part, we can plan the rebuilding of our empire in a coordinated sort of way.

In the process, we will witness sweeping changes in the living patterns of millions of our people. We are on the verge of another one of those great transitional periods which have so indelibly stamped the American record—and always for the ultimate good.

It is obvious that we must get more business men to participate in planning community development.

"Participate" is not a complex word. It means to take part in. But if you break the word down, it is not quite as simple as it looks.

For example, if I join an organization and seldom go to meetings, I am

not actually participating. I pay my dues and follow the proceedings through the newspapers or the organization bulletin, but I'm a side-liner. I am just a joiner.

But if I go to meetings and enter into discussions and accept appointment to committees, and actually put in time on my committee assignment, then I am participating.

We must try to broaden the scope of participation.

You have all known men who hesitate to speak up in meetings because they feel their own experience lacks the necessary depth to make their suggestions worth heeding. We may admire their modesty, but they are holding out on the group.

If nothing else they can serve as "thought-starters" to those who may have a more intimate knowledge of the subject under discussion. Their comments and their questions will dredge ideas out of others.

So long as he makes sense, no man has to be a walking encyclopedia to be

LEADERSHIP IN ACTION!

a valued participant in any group discussion.

It seems to me that the answer to participation is not entirely in the realm of *how*, but in the realm of *why*. If the businessman understands why he should participate in community development planning and programming, then he is going to do it. Motivation is the key to both learning and acting.

If he is galvanized into an understanding of his own personal stake in community development, no one is going to keep him away from meetings where plans are launched and decisions made.

Ours is a positive campaign—not negative. Each one of us should constitute a dynamic center of initiative around which can be built an effective group for action.

What shall we tell others? The question is important because both lethargy and enthusiasm are contagious.

It is not new to say that good business depends in large part on environment but it's worth repeating until it is drilled in like a rivet.

We ought to say that if business is not as good as it should be because the community environment is bad, it is not enough to bemoan it.

Our particular job is to weld together a widespread enthusiasm for tackling the algebra and geometry of metropolitan growth—without looking in the back of the books for easy answers. There are no easy answers, but enthusiasm will find solutions.

Without community enthusiasm, our beautiful blueprints will wind up gathering dust in the files for over-aged wood-pulp.

The more business men who band together to foster the correction of metropolitan ailments, the more action will be engendered. Other organizations will not wish to lag behind.

It is up to us to light fires of determination.

The problems of metropolitan growth are basically a local responsibility—not a responsibility of the central government in Washington.

I realize that a great many people believe that the way to solve our community development problems is by obtaining loans and grants in aid from the national treasury.

The American business community as represented by the Chamber of Commerce of the United States believes that it is more prudent for a community to

operate on a do-it-yourself basis; that it is cheaper and more practical and more in keeping with the traditional American way.

In his address at Williamsburg, Virginia, last year, President Eisenhower said that—"Every state failure to meet a pressing public need has created the opportunity, developed the excuse and fed the temptation for the national government to poach on the states' preserves. Year by year, responding to transient popular demands, the Congress has increased federal functions. The pendulum of power has swung from our states toward the central government."

The President was right.

The National Chamber supports the principle of limited national government as a key to the continued success of our economy. It maintains that national treasury aid is generally not desirable. That such aid enlarges central government spending and authority and that local responsibility is diminished in direct proportion.

The point at issue is whether we shall support the principle of limited government and work toward building local responsibility—or shall we conclude that treasury aid is the only way?

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REPRINTS

Two articles recently appearing in ID have been reprinted because of the large number of requests received. These can be useful in many ways to your firm.

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Cleveland Corridor	Louisiana
West Texas	Cobb County, Ga.
Rome and Floyd County, Ga.	Arizona
Sacramento	Pennsylvania
North Carolina	Canada
Orange County, Calif.	Petersburg, Va.
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LEADERSHIP IN ACTION!

If the principle of limited central authority is wrong, then we might as well change our whole framework of government.

The alternative to local responsibility is reliance on Washington bureaucracy to conceive solutions to all urban problems. Is that what we want?

This arrangement would leave 230,000 elected state and local officials with no responsibilities for community development except to ask for national treasury funds. It would transfer the leadership of the urban development problem to the Banking and Currency Committees of the House and Senate and to the bureaucrats to whom those committees delegate authority.

If that is not what we want, then there are certain things we can do to keep leadership at home. It is imperative that we maintain close contact with state, county and local government officials. And when we do talk to them, we have to enter the conference room with our brief cases loaded with facts.

New Laws Needed

We must rejuvenate some of our outmoded state and local legislation. We must urge state governments to sponsor revisions in constitutions and state laws which stand in the way of balanced urban development—and exert the same kind of influence on municipal authorities when it comes to ordinances.

Then we must think about local planning. Here is where the business man should find himself working with familiar techniques.

The management of a business is a job of continuous market analysis, materials analysis and manpower analysis. Analysis is followed by planning. And planning is followed by action—which is production or selling.

A similar process of analysis and planning—and eventual production—is required in community development. A community analysis must include all the factors of urban development—such as industrial, commercial, housing, transportation, community facilities development and renewal activities.

The analysis must be broad enough to encompass all the major economic pressures on business and industry. The forces which affect business most may be from outside the community. There may be regional, national or even international pressures of markets, technological advances and social changes.

It should be a primary responsibility of a local chamber of commerce to in-



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vest in the kind of a community analysis that would provide the finest type of information for use in comprehensive planning. If the chamber is not in a position to invest in this type of analysis directly, then it should stimulate and give guidance to those who can—and that might be an official board or commission.

In substance, the idea in analysis and planning is to get all the facts—the major, the minor and trivial, because they can change places fast in our burgeoning society. If we had any use for a motto or a slogan today, I might suggest that it could be "Plan now for the year 2,000," and even then—if we aren't careful with our blue-prints—our plans may prove to be short of needs before the 21st century.

It is this kind of planning that also gives the answer to the question of balanced community development. The piecemeal method of achievement in community development has its attractions. Sometimes it has its necessities. We can't always do everything at once. But unless we have the next move in mind while one is in progress, it is too easy to rest on our oars after one successful lap.

Ideally, a program in response to the requirements of metropolitan growth must fit together like the parts of the automatic transmission in your car.

In ordinary business procedure, we know that we must gear employment and production with sales. The principle is the same in urban renewal and community development.

What sort of organizations are going to spearhead all this?

Shall we set up new ones or shall we rely on those with past records of achievement—with a record of getting things done?

Personally, I suggest the latter. The chamber of commerce is that kind of organization in almost every area. Our chambers of commerce have experience. They have contacts. They have voluntary workers—men of superb personal talent who are unstinting with their time for the community good. Our chambers have trained professional help. They have research facilities. They know how to work with other community groups.

They are able to work with local governments, with school organizations, the churches, with service clubs, with women's groups, with neighborhood and regional groups. They have achieved a standing with rural organizations outside the urban problem area—and we should remember that without rural acceptance in many regions our urban plans could wither on the vine of non-action in state legislatures.

A big urban development program

requires a big chamber of commerce. More chamber membership is vital. So is staffing. A short-handed chamber cannot communicate effectively with other community groups.

The chamber must have sufficient skilled volunteer and professional talent to arrange and conduct the kind of sessions which will weld community interest groups together to discuss ways and means for action in urban development.

A local chamber's job is to keep the pot of problems stirred so that none settle to the bottom and are overlooked or forgotten.

Dedication and persistence are two key words in the chamber of commerce movement. The chamber of commerce in each community which is now concerned with growing pains must succeed in growing to the size required by the intensity of the pains.

In recent months, it has been my privilege to visit almost every segment of this country. This experience has given me a new insight into the chamber of commerce movement and a new respect for it.

Wherever I go, I find that our chambers of commerce are the hard core of leadership on which the well-being of any community must depend. In every community, they include the men and women whose feet are firmly planted in the basic American traditions, but whose heads and shoulders rise above the clouds of narrow interest.

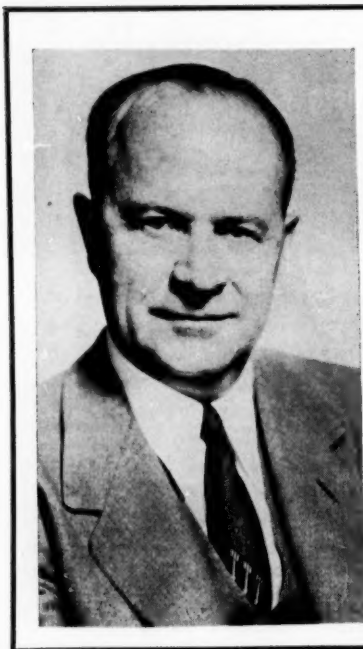
They embrace the sturdy thinking of any given city. A typical chamber of commerce seldom includes very many artful dodgers who talk fluently about good causes and then come up missing when there is work to be done.

It has been said that we in America have a peculiar talent for voluntary organization, and the record would seem to bear that out.

In earlier times, we pulled together to roll logs for a school or a church. In after years, in this same spirit of local self-reliance and cooperative effort, we found ways to pave our streets and avenues and organize traffic. The push and thrust of voluntary organization has resulted in parks and playgrounds, schools and swimming pools. It has resulted in the transformation of shadowed business climates into sunny business climates.

Our challenge today is one of degree. Its magnitude need not frighten us. We should know by now when and how to use the stimulus of extensive publicity

(Continued on page 16)



ABOUT THE AUTHOR

The 1958-1959 president of the Chamber of Commerce of the United States, William A. McDonnell has had a remarkable career of combined business and civic endeavor. He is board chairman and chief executive officer of the First National Bank of St. Louis, a \$600-million institution. And, in addition, to his duties with the U. S. Chamber, he is currently active in a number of civic enterprises for St. Louis and Missouri.

A native of Little Rock, Arkansas, Mr. McDonnell is a graduate of Vanderbilt University, with a law degree. He saw overseas service during World War I, reaching the rank of captain of field artillery, and following the war entered the practice of law in Little Rock. He later joined the Federal Bank and Trust Company there, and in 1944 went to St. Louis as vice president of the Mercantile - Commerce Bank and Trust Company. Three years after that he went with the First National as executive vice president and director, moving through subsequent promotions to his present position.



Transistor production requires specially trained workers to assemble the tiny, precise parts. The new Raytheon plant at Lewiston, Maine, will provide more than 2,000 new job opportunities.

Founded in 1922, Raytheon has pioneered in many electronics developments. Since that time it has enjoyed a steady growth to the point where today it has 35 plants at key points all over the nation. The company's expansion pattern is outlined here . . .

FROM PLANS TO PLANT

THE official announcement on July 1 that the Raytheon Company would locate a new plant in Lewiston, Maine, marked another step in a long-range program of planned growth by the company.

One of the world's largest companies devoted exclusively to electronics, Raytheon today employs 39,000 persons. Sales are running at the annual rate of more than \$450 million.

Raytheon products include items for national defense, for industry and for every day living. They range from such things as seed-sized transistors, to giant air traffic control radars and complete weapon systems for the armed forces.

The company's latest expansion move came as the result of planning that began early in 1956. Between then and the time of the decision to locate in Lewiston, the company considered 30 cities in nine Atlantic Seaboard states.

Some of these cities were studied in detail.

After Raytheon decided that it wanted the new plant to be in Maine, it retained the consultant firm of Arthur D. Little Company to help in site selection. The latter firm in turn requested the Department of Economic Development of Maine to prepare detailed economic information concerning three areas in the state. The identity of the client was not given.

One survey in which the department participated contained 91 detailed items of information concerning the areas under consideration. Schools, churches, recreational facilities were considered, as well as obvious economic aspects such as labor supply, taxes, service facilities and available plant sites.

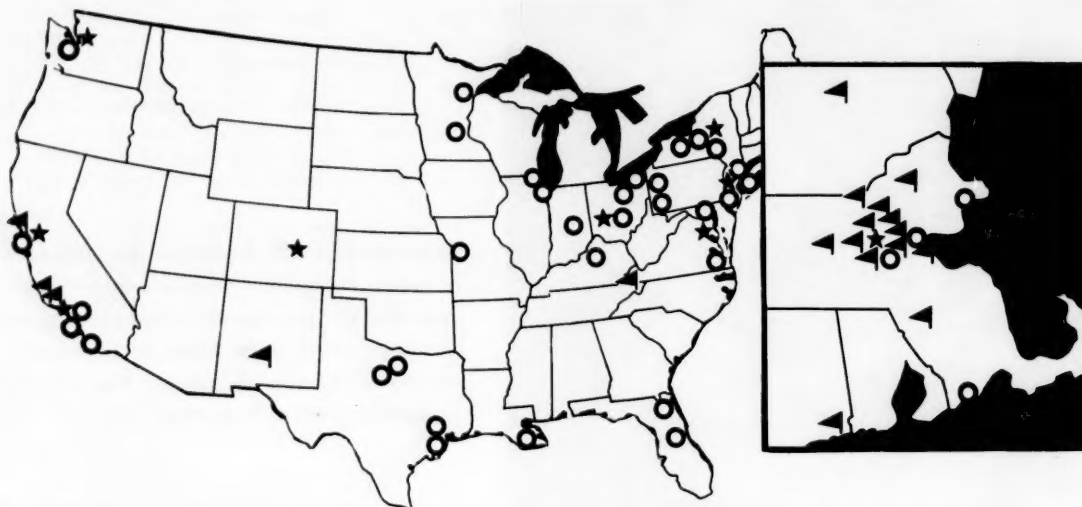
At one time as many as seven separate teams of investigators were studying various aspects of the communities

under consideration.

All the many possible locational factors were studied by Raytheon before the final choice was made. Also, an important influencing factor, Raytheon officials said, was the attitude of financial institutions in Maine. The entire financing for the \$2.5 million plant was arranged through Maine companies.

The new unit is for Raytheon's semiconductor division. This division was the first to mass produce and market transistors. It manufactures a complete line of semiconductor devices including diodes, transistors, and rectifiers, for such varied uses as home radios, radars, computers, satellites and hearing aids.

The largest facility of a new industry to be constructed in Maine in the last 50 years, the building will have 140,000 square feet of floor space. It is expected that the plant will ultimately employ

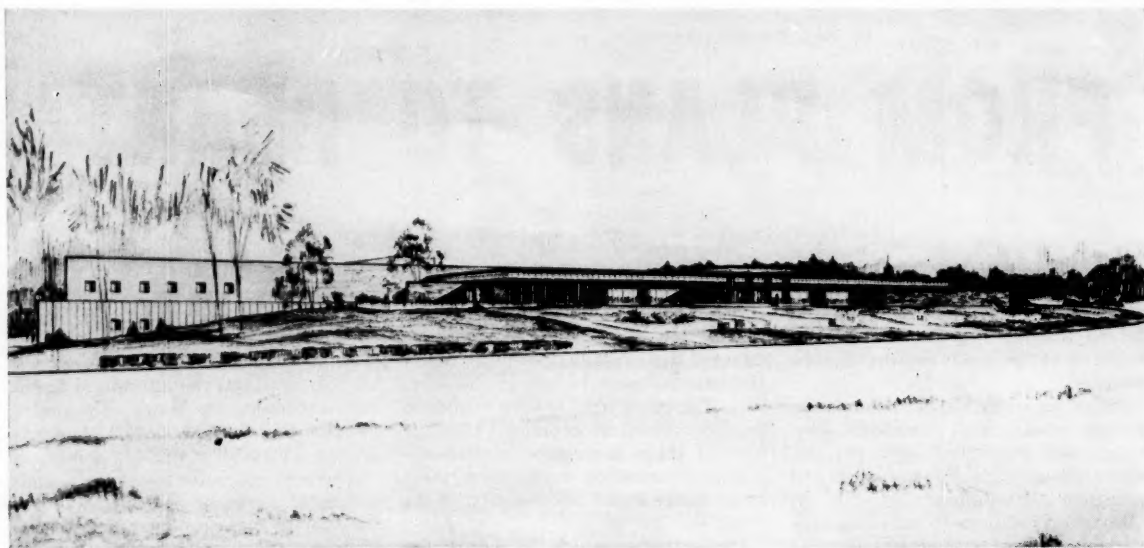


▲ Plants and Laboratories

○ Commercial Sales or Service

★ Government Sales or Service

How Raytheon has planned the location of its plants and sales and service facilities to serve major markets is illustrated on the map. All pertinent locational factors are taken into consideration before a specific facility site is pin-pointed.



The newest expansion announced by Raytheon is a plant for its semiconductor division to be located at Lewiston, Maine. Construction is scheduled to begin in the early Fall, with completion set for mid-1960. The architect's sketch shows how the 140,000-square-foot facility will look.

more than 2,000 persons, with a payroll close to \$8 million annually. Construction is to start in the early fall, and it is to be completed in mid-1960.

With a long history of growth, the

company was founded in 1922 as the American Appliance Company in Cambridge, Massachusetts. It was renamed Raytheon in 1925, the year it brought out the gas-filled rectifier tube that

made home radios simple plug-in devices. By 1929, Raytheon had become a major manufacturer of receiving tubes.

Continuing its expansion, Raytheon in 1940 moved into the design and pro-

duction of the microwave power tubes which were regarded as being the means for breaking the wartime radar bottleneck, and the company became a major producer of military radars.

Further growth came in 1946 by the merger into Raytheon of Submarine Signal Company, a pioneer since 1901 in underwater sound equipment.

The largest industrial employer in Massachusetts, Raytheon is the only electronics company with prime contracts for two missiles—Sparrow III and Hawk. It also is the world's largest producer of magnetrons and klytrons, and it ranks among the top one per cent of all U. S. industrial employers.

Not including the new Lewiston unit, the company has 34 plants and laboratories with a total of 6.8 million square feet of floor space. There are 36 commercial sales or service offices, while service facilities for marine products are located in 167 foreign ports.

Important in Raytheon's growth has been its choice of personnel. For example, more than 3,600 persons—almost one out of every 10 employees—are engineers and scientists.

In addition to the Semiconductor Division the other 11 divisions of the company are:

Government Equipment: This Division is engaged in the design and manufacture of a broad range of electronic equipment for the government, including various types of radar, sonar; communications and countermeasures equipment, and infrared devices.

Other Divisions

Missile Systems: Prime contractor for the Navy's air-to-air Sparrow III and the Army's ground-to-air Hawk. The division is now the largest in the company.

Microwave and Power Tube: Established in 1942 to develop and manufacture microwave tubes.

Receiving Tube: The oldest segment of the company, this division is today a major producer of receiving tubes for radio and television sets.

Industrial Tube: Produces tubes for industrial and military applications, including jet aircraft, computers, missiles, telephone equipment, radiation detectors and hearing aids.

Equipment and Systems: Produces and markets a wide variety of marine and communications equipment.

Industrial Apparatus: The apparatus produced and marketed by this division includes ultrasonic machine tools, Weldpower resistance welders, micro-

wave power generators and Radarange microwave cooking ovens, as well as electronic components.

Research: Both independent research projects and work in support of scientific developments by other divisions are carried out by this group.

Government Services: Serving in this division are more than 300 Raytheon field engineers assigned to some 90 locations in the U. S. and overseas. They provide instruction and equipment service to the military and to equipment

manufacturers. The division also operates overhaul and repair depots at strategic locations.

Distributor Products: All Raytheon products sold through distributor channels are marketed by this division. This experienced merchandising group adds strength to Raytheon's expanding commercial business.

International: The sales of company products overseas are promoted by this division through subsidiaries, licensees and distributors in 73 countries.

Metropolitan Western New York



Hub of rich United States markets and gateway to Canada

Lackawanna, Buffalo, the Tonawandas, Niagara Falls, and Lockport comprise a metropolitan center that has grown to a brawny, bustling industrial giant with a deep niche in history and a penetrating eye on the future. The area has commercial "it"... a most favorable business climate, among many other advantages.

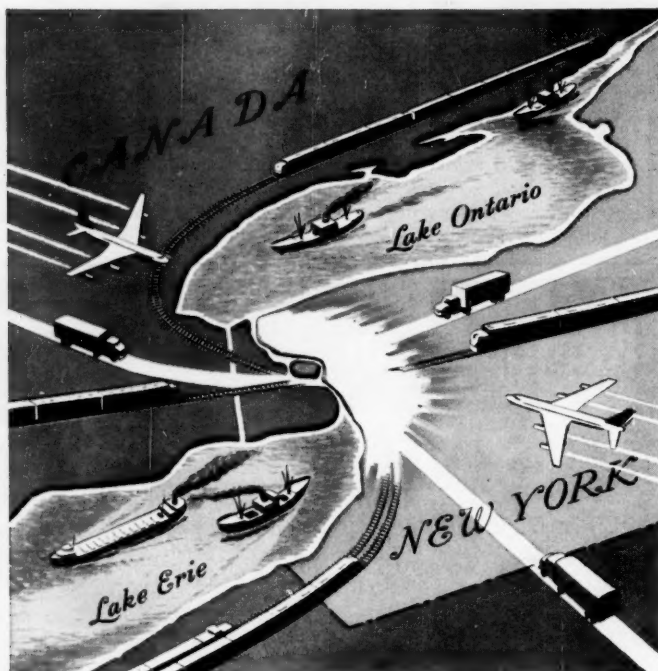
Consider this area in your business plans. Labor is skilled and cooperative. Every year new scientists and engineers flow from local colleges and universities. Here the Great Lakes become the mighty Niagara River—one of the world's greatest sources of water and power. There is diversified industry... a network of rail, water, highway and air transportation... plus plant site availabilities close to the

Seaway and New York State Thruway. For your people there are music, art, top-notch schools and a world of summer and winter sports.

The Marine Trust Company, established in 1850, knows well the area it serves through its 62 offices. If you'd like more information, drop a line to President Francis A. Smith, Marine Trust Company, Buffalo 5, N.Y. He will be glad to give you the bank's detailed knowledge of men, markets and materials.

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The Niagara Frontier is a transport center in the midst of a big market. The Port of Buffalo, that handled over twenty-three million tons of cargo last year, is now the first major U.S. port-of-call on the St. Lawrence Seaway. The Frontier is linked to the whole populous northeast by the New York State Thruway. It is served by 12 rail lines and over 200 scheduled airline flights a day. Just over the Peace Bridge lies Southern Ontario, home of more than half of all Canadian manufacturing output. More than 55% of all

U.S. citizens, more than 62% of all Canadians live within 500 miles of this busy link between two thriving nations.

There are good manufacturing sites available on the Frontier. Pure water is limitless; low cost power is plentiful; there's ready access to all kinds of raw materials; a solid labor force offers skill as well as brawn. For specific information on available sites for your business write, wire or phone the Director of Area Development, Niagara Mohawk Power Corp. Dept. I-8, Erie Blvd. West, Syracuse 2, N. Y.

NIAGARA  MOHAWK

LEADERSHIP IN ACTION

(Continued from page 12)

to arouse public enthusiasms, and when and how to use the conference table with responsible authority. We have done it before. We can do it again.

Our methods are confirmed by experience, and from every perspective the results have been solid. We can lead our fellow business men into participation in urban development; we can steer public and official thinking in the direction of local self-reliance; we can make sure of comprehensive community planning based on analytical study of the community's needs; we can achieve a balanced program of urban development, and we can bolster the working forces which bring all these things to completion.

It is half the battle to know what must be done. A third quarter of the battle is planning and strategy, and the four quarter is unflagging persistence, the kind of courage that takes setbacks in its stride.

Finally, the present challenge calls for abiding confidence in the spirit of American voluntary action. Chicago had a fire—and a new Chicago grew from the ashes. San Francisco was leveled to the ground—and a new San Francisco emerged from the rubble. No one had ever heard of national treasury funds for urban renewal in that day and age.

Who raised a new Chicago on the embers of the old? And who reared a new San Francisco on the fragments of the past?

It was the business men who aroused the enthusiasm of the public and kept at that job by night and day until the end ambitions became the end results.

We cannot do less. We won't do less. The future landscape of America is in your hands, and there I leave it. I know of no better place to lodge that adventuring assignment.

Coming In September

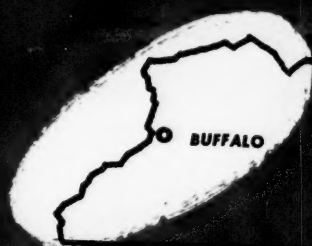
Oklahoma

With young and aggressive leadership, the Sooner State is set to push a new era of industrial expansion.

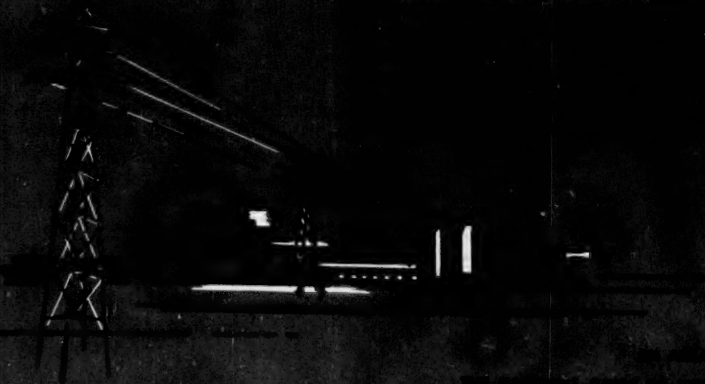
Fresno County, Calif.

The nation's richest agricultural county makes a bid for industry. I.D. takes a look at the potential.

UPSTATE NEW YORK



**NIAGARA
FRONTIER**



Look at the Niagara Frontier . . .

It Has the BIG Factors For

Here's an ID survey of an area that has been tagged "distressed" and which has suffered from bad publicity. What's the truth about the future of this important section? Will it continue to grow? Are there favorable location factors? Here are the facts . . .

BY JOUETT DAVENPORT, JR.

IF you're looking for a plant site where you can find abundant electric power of well-nigh unlimited supplies of fresh water and good water transportation—or both—then you will do well to give careful consideration to the area known historically as the "Niagara Frontier."

Comprised of the New York counties of Erie and Niagara, and the cities of Buffalo, Tonawanda, North Tonawanda and Niagara Falls, the area is situated along the eastern shore of the Niagara River, across from Canada, between Lakes Erie and Ontario.

This frontier is as old, of course, as the existence of the United States and Canada. And, through the years there have been developed within the two countries vast manufacturing complexes bearing the names of companies which have been leaders in industry for many decades.

However, a careful look at the area shows that, despite this maturity, it possesses today important characteristics which give it the elements of a new frontier—one that may be re-

Growth !



Bell Aircraft Corporation Photo

Niagara Falls, located 20 miles from downtown Buffalo, is one of the wonders of the world. Normal flow over the 170-foot cataracts is 25,000 tons of water per hour, or 224,400 cubic feet per second.

garded as new from the standpoint of the huge development potential which still remains.

You see this quickly in such things as the extensive open land tracts—close to necessary utilities and transportation—which exist in key spots in the two counties; in the expansion of port facilities; in the building of great new freeway systems, and in the accelerating growth of the market within and surrounding the Niagara Frontier.

But, more important still, are the water and power—the two basic elements which gave the area its initial impetus for growth back in the nineteenth century.

It was in 1825 that the Erie Barge Canal was opened, providing an all-water route from the Atlantic to the Great Lakes and reducing transportation costs by 75 per cent. Being the western terminus of that canal, the community of Buffalo, which was chartered as a city in 1832, immediately began to prosper.

Right along with and enhancing this

advantage was the beginning of hydro-electric power development at Niagara Falls. As early as 1826 a company was formed to work on this development, and this continued until the 1890's when a huge development at the Falls was completed and a successful method of transmitting electricity for long distances was discovered.

Today, low-cost water transportation—newly augmented by opening of the St. Lawrence Seaway—and abundant power to be greatly increased by projects currently underway, constitute perhaps the Niagara Frontier's leading asset.

Expanding Power Capacity

This area is served by Niagara Mohawk Power Corporation which is bringing to completion a big, continuing construction program to increase generating capacity. At the same time, the Power Authority of the State of New York is in the midst of a tremendous Niagara River hydro-electric power project which, with all its ramifications, will cost in excess of \$700 million.

When the authority starts producing power, probably in 1961, 445,000 kilowatts of firm power will be available to Niagara Mohawk in return for its surrender of its Niagara River license. The federal legislation authorizing the State Authority to build and operate the project directs the sale of this energy to the company on a long-term contract.

It will be remembered that in 1956 a rock slide at the Falls destroyed a greater part of Niagara Mohawk's hydro-electric facilities there, and the energy to be received from the Authority's new facilities is to replace the capacity available at the company's Schoellkopf and Adams Stations prior to the rock slide.

Niagara Mohawk will also receive a substantial share of the remaining output of the Niagara project. Preference in selling the power to publicly-owned systems and to cooperatives is limited to one-half the project output. The company also expects to serve as a principal transmission agency to deliver Niagara power to most of the project's

marketing area.

Further, Niagara Mohawk has a contractual allotment of 115,000 kilowatts of firm power—plus additional power not required by other customers—from the State Power Authority's St. Lawrence project.

In its own big construction program, Niagara Mohawk during 1958 made gross additions to electric and gas properties amounting to \$101,548,000, while construction expenditures for 1959 are estimated at \$105 million.

Involved in the 1958 growth was an increase to 1,186,000 kilowatts of generating capacity at the company's Huntley steam-electric station near Buffalo, which is the system's largest single source of power. The second of two 200,000-kw generating units, with actual tested capability of 210,000-kw, was placed in service in November, 1958.

At the Dunkirk steam-electric plant two similar units will be placed in service this year and in 1960, raising that station's generating capacity to 624,000 kilowatts. Another 17,300 kilowatts is being added through placing in service of the Prospect hydro-electric plant near Utica this year.

Altogether, the 1959 and 1960 construction projects will raise the system's total generating capability, exclusive of firm purchase contracts, to more than 3.5 million kilowatts.

It may be seen, therefore, the existing capacity in the area plus all the expansions in progress assure prospective plant builders that the supply of electricity will be adequate on into the indefinite future.

Other Resources

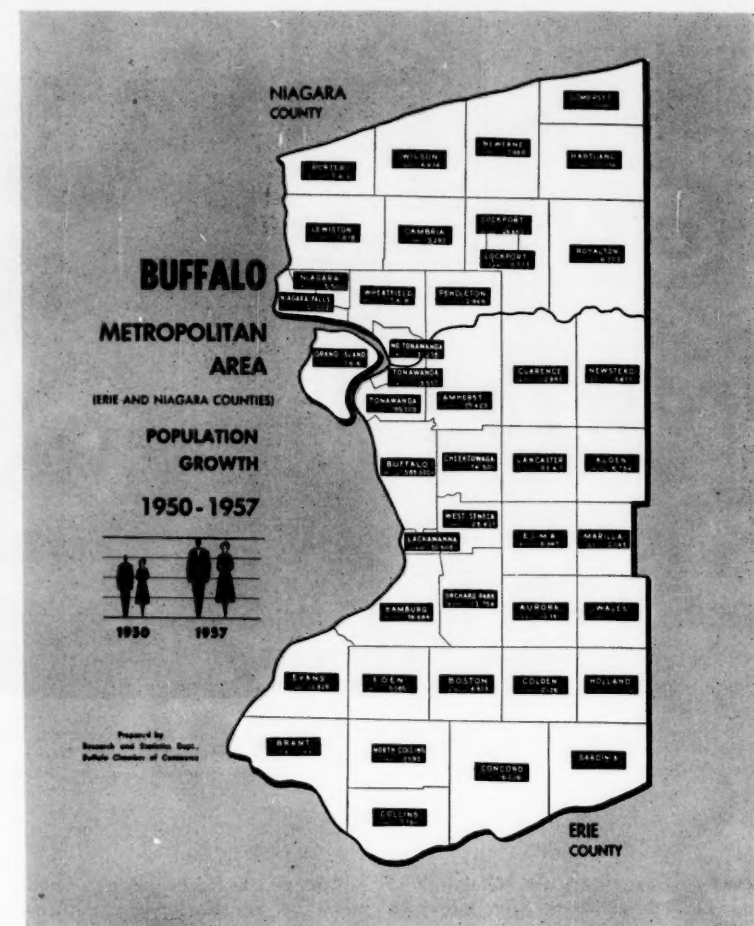
Natural gas is available for industrial use throughout the area, and coal is brought in from neighboring Pennsylvania, Ohio and West Virginia.

Wood pulp, gypsum, and shale are found in the immediate area, while iron ore, limestone, and grain reach Buffalo via lake steamers. Lumber, oil, rubber and chemical materials come in both by rail and water.

Along with the high industrialization, agriculture remains an important activity on the Frontier. Principal farm output consists of dairy products, and fruits and vegetables.

Existing Industry

Among the leading industries in this area are steel works and rolling mills, iron and steel products, chemicals, motors vehicle parts, machinery, food,



Population figures, as of 1957, indicate an overall increase in the populations of Erie and Niagara Counties from 1,089,230 in 1950 to 1,298,587 in 1957. The two counties are considered together as the Buffalo Metropolitan Area. The smaller units are townships in the two counties.

paper and paper products, clay and glass products, flour, feed and grain milling, rubber and non-ferrous metal products, clothing, plastics, electric and gasoline motors, furniture, drugs, petroleum products, aircraft and many others.

Including the electric power expansion projects, it is estimated that well over a billion dollars worth of industrial and commercial expansion and modernization is now in progress on the Frontier.

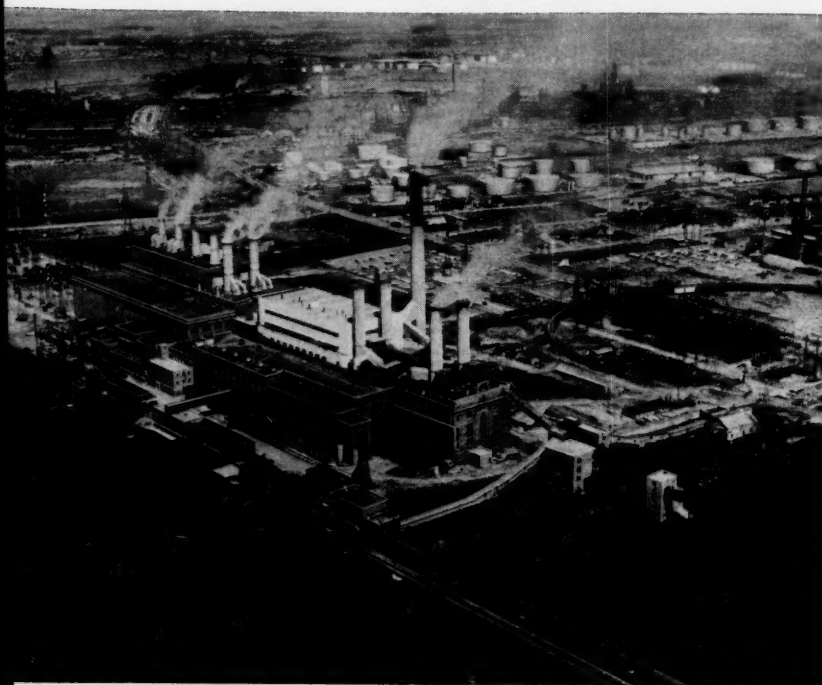
Among major growth programs here, in addition to those already mentioned, are New York Telephone Company, \$20 million; Iroquois Gas Corporation, \$6.4 million; Bethlehem Steel, \$15 million; General Mills, \$6 million; Curtiss-Wright Corporation, \$3 million; Ford Motor Company, \$1.4 million; F. N. Burt & Company, \$4.25 million; Olin

Mathieson, \$51 million; Carborundum Company, \$10 million, and Hooker Chemical's completed research center, \$3.6 million.

It is an interesting fact that many of the plants here have been in operation for a half century or more, attesting to the strategic importance of the Frontier. Executives of a cross-section of these plants stress that most of the primary factors which influenced the location of the facilities here in the first place are stronger now than ever.

An example is the big facility of General Mills, Inc., which is the largest flour mill in the world.

As pointed out by Assistant Plant Manager John Hopkins, Buffalo is in a good location for milling operations since it is in the heart of North America's most concentrated market while having excellent rail and water trans-



Niagara Mohawk Photo

The Charles R. Huntley Generating Plant, located near Buffalo, is the largest of 92 generating facilities operated by Niagara Mohawk Power Co. The power company added \$101,548,000 worth of electric and gas facilities to its system during 1958. This particular unit has a capacity of 1,186,000 kwh.

portation facilities to bring grain in from the West. "Buffalo," he noted, "is the largest flour milling center in the World." Characterizing the area as a "good labor market," Mr. Hopkins said that "just about any kind of worker you want is available." He said General Mills currently had about 1,400 employees here, and 25 per cent of these have been with the company 20 or more years.

A second example of a company that has for many years found the Buffalo area a very good place in which to produce and from which to distribute its products is Buffalo Forge Company.

Established here in 1877, the organization has enjoyed a continuous, long-range growth. Today, in addition to the big headquarters operation at Buffalo, the company has plants at nearby North Tonawanda and at Kitchener, Ontario.

Chairman Henry Wendt of Buffalo Forge stressed that today, as when the company started, it is close to supplies of steel needed for fabrication of its various products. Originally, shipments were made by rail, but now both rail and truck transportation facilities are used, and the company's products go to a world-wide market.

"Obviously," Mr. Wendt observed, "we have found this to be a good place in which to operate, and we believe that continued opportunity for us to grow is unlimited.

"The labor supply here is excellent," he continued, "as we can always find the kind of personnel we need for any specific skill." He said the Buffalo plant currently has about 1,250 employees.

An enthusiastic booster of Buffalo as a place to live, Mr. Wendt made the point that in his opinion the area had "very outstanding schools, including fine private schools and colleges. Our Kleinhans Music Hall," he said, "is one of the best such halls in the world." Other cultural assets he cited were the Buffalo Historical Society Museum, Albright Art Gallery and the Buffalo Museum of Science. He added: "And, there's mighty good fishing on the Niagara River."

Mr. Wendt said also that the city's diversity of industry added an important degree of stability to the economy, and concerning the opening of the St. Lawrence Seaway he said he felt it "will be beneficial to industry in many ways all over this area."

A comparatively recent arrival on

the Buffalo industrial scene is the Motor Controls Division of Westinghouse Electric Company, which was established here in 1946.

According to Tom Turner, vice president of Westinghouse and general manager of the Division, a particular asset in being located here is the nearness of the big steel mills. "We buy a lot of the steel we use right here in Buffalo," he pointed out.

Shipments from the plant are made by both rail and truck. The Buffalo airport is close by, and the plant also frequently utilizes the extensive air freight facilities available here.

The huge plant structure has 2.5 million square feet of floor space and there are 5,350 employees.

In discussing the work force, Mr. Turner noted, as did executives of other firms checked in this survey, that the supply of skilled labor in the area is outstanding. He made the additional point that workers who have not had previous experience are easily trained in the needed skills.

Describing Buffalo as a "delightful place in which to live," Mr. Turner said the summer climate here is particularly pleasant. He noted, too, that the area is "well up" in music and art activities.

A leader here in promoting better medical facilities, Mr. Turner said that the entire area is fortunate in having fine hospitals and that local citizens, notably Westinghouse employees, have given active support to hospital expansion and building programs. He had particular praise for the excellence of the medical school at the University of Buffalo and for cancer research activities being conducted here.

Another asset which Buffalo and the entire Niagara Frontier have—and this is right up at the top—is a virtually unlimited supply of fresh water. That point was emphasized by Wilbur G. Smith, general manager of the Bethlehem Steel Company plant in Buffalo.

"No matter what kind of demand industry may have for industrial water," he said, "our location here on the Niagara River and between Lakes Erie and Ontario means that the demand can be met."

High in his praise of the productive abilities of workers here, Mr. Smith asserted that operation of open hearth furnaces like those at Bethlehem is literally an art, "and we have the necessary artisans here."

Discussing locational factors of the area, Mr. Smith said they were "ideal"

for the steel industry. Ores are brought in by low cost water transportation from the Mesabi Range in Minnesota and other areas. Finished steel can be shipped via rail and water to the plant's entire market area.

Another important locational factor is that necessary coal for the steel furnaces is brought in by rail and water transportation from fields in West Virginia and Kentucky at reasonable cost.

The Bethlehem plant was opened here in 1903. Since that time there has been a steady growth in the number and size of steel-using industries in the market area, and Bethlehem has developed along with this growth.

With a current employment of approximately 19,000, the plant is ranked as the nation's fourth largest steel mill with a capacity of six million ingot tons a year.

Rival Republic Steel also is a long-time citizen of Buffalo, having been formed in 1930 from a merger of several other companies.

Favorable points about the city stressed by Republic District Manager Robert Carpenter included an observation that this is "a pleasant place in which to work, with sincere, conservative people."

He said also that he particularly liked the weather combination here of cool summers, and winters which provide a variety of snow sports. He commented further that snowfall rarely interferes with business in Buffalo as the city is well set up to handle it.

"Altogether," he declared, "this is beautiful country all around here. There are fine parks for the children, excellent clubs, and plenty of recreational activities for all ages."

Comparable comments on the advantages of the Niagara Frontier came also from industrial leaders outside of Buffalo.

For example, Don B. Myers, vice president-manufacturing of Columbus McKinnon Chain Corporation at Tonawanda commented that the area has "plenty of gas, electricity and water."

His company uses both rail and truck transportation, and he characterized the latter as being "very good."

Concerning the labor force, Mr. Myers said, "The best workers one can possibly find are here in the Tonawanda and North Tonawanda area. They want to do a good job and are proud of being able to turn out a high quality product." He said the people of this community are alert, ready to take part

in progressive action and to improve themselves and their surroundings. "Altogether," he declared, "there are excellent community relations here."

Mr. Myers praised the educational facilities of the area, citing particularly the University of Buffalo which has a broad program of training on specialized techniques. He noted that his company utilizes the services one and a half days each week of the head of the metallurgy department of the university. The Cornell laboratory is also a big help on special projects, he added.

The company uses both steel and aluminum in its products, and Mr.

Roy F. Waltermade, vice president and general manager of the plant, pointed out that Wurlitzer, which produces electronic organs and coin operated phonographs here, uses rail, truck and air transportation. "We have found all these facilities excellent for our needs," he said. He added that about 34 per cent of the company's business is in foreign markets.

Although, because of the nature of its products, the company uses raw materials from many distant sources, it gets steel from Buffalo and die castings from Cleveland and New York, all of which are easily accessible.

BIG BUSINESS



Bell Aircraft Corporation Photo

Bell Aircraft Corporation purchased this facility from the government in 1946 and has enlarged it since. The plant employs about 2000 people and manufactures a variety of space-age products including guided missiles, space vehicles, rocket engines, and various automatic control devices. Located in Wheatfield, the firm has been in operation since 1935.

Myers cited the fact that both these metals are available nearby, making this an important location factor for the Columbus-McKinnon plant. The operation has been here since 1910 and currently has 725 employees.

Other factors mentioned by the chain manufacturing executive included "good and well organized banks and other financial institutions, fine road systems, outstanding recreational and cultural attractions, wonderful summers and outstanding winter sports."

Another venerable firm in this area is the Wurlitzer Company. In 1908 Wurlitzer acquired the plant and business in North Tonawanda of DeKleist and has operated it ever since. With expansions that have been made it is the largest plant of its kind in the world.

The Wurlitzer plant currently has 1,400 workers. Mr. Waltermade said personnel recruited for the plant from this area is easily trained in the necessary skills and specialized techniques required there.

Asserting that "you can't beat this area as a place in which to live," the Wurlitzer executive said he enjoyed the mild summers and stimulating winters, as well as all the social amenities which the Niagara Frontier offers.

In the highly industrialized city of Niagara Falls, an outstanding example of an organization that has grown and prospered is Hooker Chemical Company.

In his discussion of the company's operations, Hooker Board Chairman R. Lindsey Murray listed important lo-

cational factors as (1) low cost electric power; (2) a nearby supply of salt which is brought in by rail; (3) an unlimited supply of water for process use and (4) a strategic location in relation to markets.

He said Hooker Chemical ships by pipeline, tank cars, and trucks, and it also utilizes the barge canal.

Mr. Murray stressed, too, that the new Niagara power development will be "very important" to the area, and with the rate of economic growth being maintained on the Frontier, all the new available power will be used.

Hooker Chemical was started at Ni-

The Market Area

To follow up these comments by representative industrial leaders, let's take a closer look at the whole area and study in more detail some of the factors which make it an economic frontier of opportunity.

Erie and Niagara counties make up the Buffalo Standard Metropolitan Area, with Buffalo as the central city. The latter has a population of close to 600,000 and is ranked as the nation's 15th largest city. Erie County, with a population of more than a million, ranks as 14th largest in the country. Niagara County, with a population of

fore, promises not only a steadily growing number of consumers but also an ever-expanding work force.

In the big picture, there are within a 500-mile radius of the Niagara Frontier 82 million persons with an annual income of more than \$160 billion. This is 55 per cent of the total United States population and 60 per cent of total income.

Further, there are 8.7 million Canadians residing within this radius and who account for 69 per cent of Canada's industrial plants, 81 per cent of total manufacturing employment, and 90 per cent of Canada's manufacturing activity. (A comprehensive report on this booming Canadian activity begins on page 33 of this issue.)

The Frontier also is the hub of the eight-county Western New York trading area which has a population of more than 1.7 million and where close to \$2 billion in retail sales are made annually.

A Center of Transportation

As an interchange point between rail, highway, air and water transportation, both domestic and foreign, the Buffalo area offers industry complete access to destinations within the United States and abroad.

Comprising one of the largest industries in the area, the railroads have more than 17,000 employees on the Niagara Frontier, with payrolls totaling close to \$6 million a month. Some 30 additional railroads maintain off-line offices in Buffalo.

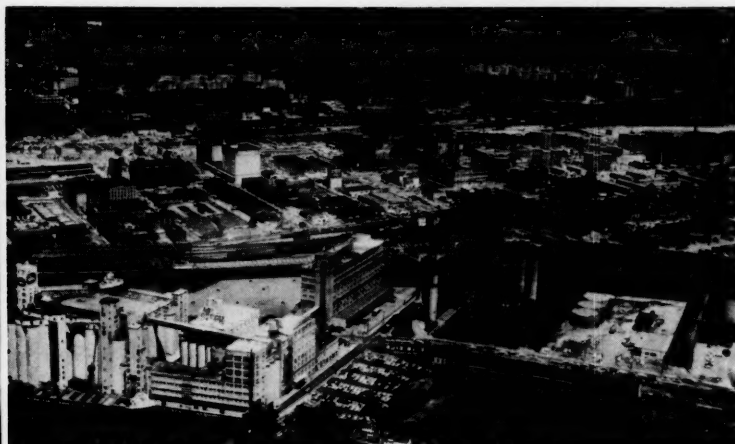
Railroads serving the area are the New York Central, Erie, Pennsylvania, D. L. & W., Lehigh Valley, Baltimore & Ohio, Canadian National Railways, Wabash, Nickel Plate and Chesapeake & Ohio. In addition to these, the Canadian Pacific operates into Buffalo over the Toronto, Hamilton & Buffalo and Michigan Central Railroads.

One of the most modern air terminals in the nation, the Greater Buffalo International Airport is the center of air transportation for the entire Niagara Frontier area, and by ground transportation it is a relatively short distance from any point in the two counties.

Full facilities are available for the handling and maintenance of commercial and private aircraft. Extensive parking facilities are available, and two modern motor hotels are located adjacent to the airport.

Around-the-clock schedules are maintained in and out of Buffalo by two major trunk airlines, American and

ON THE FRONTIER



The largest flour milling plant in the world is in Buffalo. Owned and operated by the General Mills Company, the plant also makes cereals, cake mixes, and packaged foods. This is General Mills' largest manufacturing unit. Originally built in 1904, the plant has been in a constant state of expansion ever since. Employment ranges between 350 and 500.

agara Falls in 1906. This sprawling operation is the largest of the company's group of 12 plants and has 2,500 employees.

In its pattern of growth the firm has expanded both by acquisition of other companies and by construction of new facilities. "We plan to keep on growing," Mr. Murray declared, "and we now have a number of projects under careful consideration." He pointed out also that Hooker was fortunate in having sufficient land for expansion adjacent to its present facilities at Niagara Falls.

Mr. Murray, who came to this area from San Francisco in 1916, said he has been delighted with the Frontier as a place to live and he intends to remain here when he retires.

225,000, is the adjoining county with the city of Niagara Falls constituting about half of its total population.

The Standard Metropolitan Area itself is the 14th largest in the country in terms of population, and the two counties comprise an area of nearly 1,600 square miles.

Situated about midway between New York and Chicago, the nation's two greatest population centers, the area is at the point where the greatest concentration of activity occurs between the United States and Canada.

Current estimates are that by 1970 Buffalo will have a population of 666,700, while the projection for Erie County is 1,213,100, and for Niagara County, 250,000.

The immediate market area, there-

NIAGARA FRONTIER

Capital. Local service lines serving the area are Allegheny, Mohawk and Lake Central. Air freight and air express are handled by many of the passenger flights, and air freight forwarder service is available through Emery Air Freight Corporation. Flying Tiger Lines air-truck service also serves Buffalo.

All-important accessibility for motor transportation in and out of the Niagara Frontier is provided by an excellent network of roads which is constantly being improved and expanded.

The City of Buffalo is located on the New York State Thruway which runs from New York City to the Pennsylvania border near Erie. The Thruway has an extension south of Albany which forms a connecting link with the Massachusetts Turnpike and north to the Canadian border.

Another extension, from Buffalo to the Canadian border at Niagara Falls is under active construction, with major parts of it having been completed. This will make Buffalo the only major city with a Thruway exit in the heart of its downtown business district. It is planned that there will be constructed eventually connecting facilities in western Pennsylvania and eastern Ohio to provide a link with the Ohio Turnpike.

Intersecting at Buffalo are North-South highways U.S. 62 and 219, and East-West Route U.S. 20, while a number of New York State highways connect here. Extensive plans also are being implemented for a network of expressways and belt parkways in and around Erie county and the city.

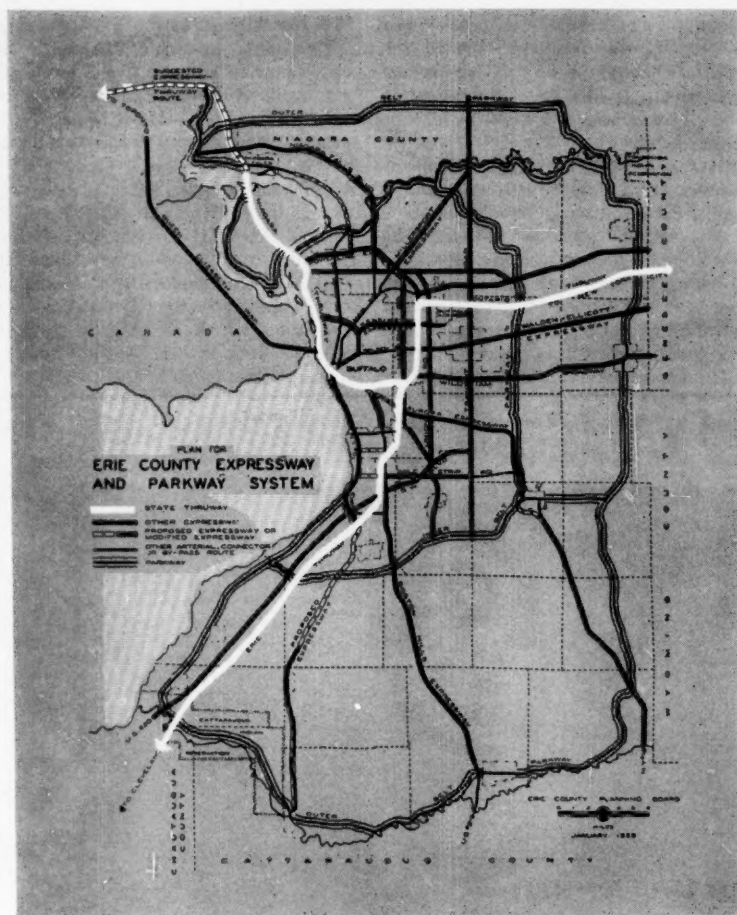
Locally, Buffalo and the Niagara Frontier have frequent, reliable service with modern equipment by several bus lines. The latter include Niagara Frontier Transit System, Buffalo Transit Company, Grand Island Transit Corporation and the Buffalo-Niagara Falls Bus Lines. These companies also offer charter service for excursions or special occasions.

In addition, of course, there is a big network of motor trucking lines serving the entire area with heavy schedules fanning out in all directions from the Frontier.

The Port of Buffalo

As noted previously in this report, the water transportation facilities of this area constitute a major asset.

This asset is being further enhanced by a multimillion-dollar program of expansion and improvement currently underway in Buffalo. Under construction



The Niagara Frontier area occupies a strategic spot in the nation's super highway network. The main east-west artery is the New York State Thruway running from New York City to the Pennsylvania border with a connecting link to the Massachusetts Turnpike. Additional thruways are under construction or planned.

are three new bridges, a new harbor entrance is being prepared, the Outer Harbor and several slips will be dredged, and various waterfront facilities will be improved.

Although a considerable part of this project is aimed at improving facilities to handle an increasing number of larger foreign ships coming in from ports worldwide, a lot of the activity will result in helping shipping on the Great Lakes which still remains as the backbone to waterfront operations here.

However, it is recognized that opening of the St. Lawrence Seaway—which was officially dedicated June 26 in ceremonies with Queen Elizabeth and President Eisenhower participating—will increase the stature of Buffalo as a great center of commerce.

Many businessmen here believe, for example, that the Seaway ultimately

will bring entirely new industries to the Buffalo area, and some exporters on the Frontier expect that it will enable them to compete more advantageously in foreign markets.

The Seaway literally makes Buffalo a new direct competitor in world markets, as it has become the closest big city on the Great Lakes to Europe, Latin America and other parts of the world. This makes the area even more attractive to industries which do an extensive import-export business.

The Work Force

As you have noted from the comments made by key executives earlier in this report, the Niagara Frontier has a work force that may be regarded generally as plentiful, skilled and dependable.

Specific figures show that in Buffalo



N. Y. Central System Photo

The Frontier Yard of the New York Central System was opened in 1957 and built at a cost of \$10.5 million replacing eight separate yards previously used in the Buffalo area. The yard occupies 180 acres and is completely electronic in operation. The rail firm estimates that the yard will save \$4.5 million annually in more efficient service and lower operating costs.

there are 157,000 male workers and 20,200 female employees in manufacturing activities. Non-manufacturing enterprises provide jobs for 201,000 men and 37,000 women.

According to the Buffalo Chamber of Commerce, 85 per cent of the present manufacturing workers belong to unions, and 11.5 per cent of the labor force is currently available for employment.

The prevailing hourly wage rate for skilled workers ranges from \$2.65 to \$3.13; for semi-skilled workers, \$2.10 to \$2.68, and unskilled, \$1.54 to \$2.02.

Figures for Tonawanda show 3,911 men and 669 women in manufacturing, while there are 792 men and 437 women in non-manufacturing pursuits. Hourly wage rates for skilled workers range from \$2.35 to \$3.28; semi-skilled, \$1.29

to \$2.71, and unskilled, \$1.10 to \$2.60. The manufacturing force is 85 per cent unionized, and 10.9 per cent of the labor force is available for work.

In North Tonawanda the male manufacturing work force was listed at 4,252 on the job, and 1,325 women were employed. Non-manufacturing activities employ 926 men and 742 women. The unemployment figure, per cent of unionization, and wages are the same as for Tonawanda.

At Niagara Falls, the Chamber of Commerce listed a total of 24,363 men and women in manufacturing jobs, with 9.8 per cent of the work force available for employment. No specific figures were available on wage rates, but they are generally comparable to those in the neighboring Tonawandas.

After June, 1959, approximately

2,000 skilled, technical and scientific people were added to the labor supply of the Buffalo area. These people are products of Buffalo's excellent technical and vocational education high schools, the Erie County Technical Institute and the University of Buffalo School of Engineering.

Skills covered by the above include auto, aircraft and marine mechanics; design and engine repair; machine shop technicians; tool and die making and design; electrical, metallurgical and chemical technology; industrial and mechanical technology; mechanical and electrical engineering; industrial chemical engineering; and physics.

Approximately the same number of persons will join the labor force equipped with the clerical, administrative and decision-making skills necessary to perform the office and management functions of modern business and industry.

An additional 3,000 persons without special skills will be available to furnish the unskilled clerical, sales and production manpower to supplement the above.

Government and Taxes

The City of Buffalo has what is known as the "strong mayor" type of government. Most of the municipal officials are appointed by the mayor instead of being elected by the voters. Mayoral appointments are subject to the approval of the common council.

The great bulk of city employees enjoy civil service status, however. They must pass examinations and receive appointments according to ratings obtained in competitive examinations.

The corporation franchise tax is 5.5 per cent, and five cents a share of no par value stock. The Buffalo municipal tax rate is 4.186 per \$100 valuation, while the Erie County rate is 1.38532 per \$100. Tools and machinery are not taxed, and there are no exemptions for new industry.

At Tonawanda, which has a limited mayor form of government, the corporation franchise tax is 5.5 per cent. The municipal tax rate is 2.86 per \$100 valuation.

North Tonawanda, in Niagara County, has the same type of government. Its municipal tax rate is \$3.09 per \$100.

The City of Niagara Falls has a city manager form of government. A mayor and four councilmen are elected at large, and the council appoints the city manager. The municipal tax rate is \$29.78 per \$1000 valuation. The city levies a 2 per cent sales tax and a 3 per cent utilities tax.

The State of New York has no retail sales tax, but there is a 1 per cent sales tax in Erie County. The state income tax amounts to 2 per cent on the first \$1,000 and up to 10 per cent of all over \$15,000.

For those interested in extensive and detailed reports of all the various taxes to which a business is subject in the Frontier area, additional information can be supplied by the Buffalo Chamber of Commerce, and the chambers at the Tonawandas and at Niagara Falls, as well as by Niagara Mohawk Power Corporation.

In this connection it must be noted here that the Niagara Falls area faces some problems in relation to its future growth, and these will of necessity be taken into consideration when you look at the area as a possible location for a plant.

Some of the problems were brought out in a recent industrial climate survey made of the Niagara Falls area by the Carborundum Company, a long-time resident here.

In a comprehensive "Index of Ratings" detailed in the study, 96 of the factors considered rated "average," 11 rated "average in relation to other comparable communities but could be improved here and elsewhere," 33 rated "above average," and 42 were regarded as "below average."

It is noteworthy that those factors which were regarded as below average are things which can be corrected by cooperative community effort. For example, they included such things as planning for industrial growth, area planning, chamber of commerce support, taxes, unemployment, industrial zoning, participation of industrial leaders in government activities, and so on.

To make constructive moves toward improving these "business climate" conditions, President Clinton F. Robinson of Carborundum suggested that there must be a Master Niagara Falls Area Plan, cooperatively developed and administered, for the maximum stability and growth of the area. He added: "United planning and united action for the well rounded and balanced growth of the Niagara Falls area will result not only in a better industrial climate but will make this area a better place in which to live. . . ."

An important aspect of the survey, which was much publicized, is that it focussed the attention of the citizenry here on these conditions. The result has been that constructive moves for improvement already are being imple-

mented.

Thus, it may well be that the many advantages of the Niagara Frontier, already enumerated in this report, will far more than outweigh the disadvantages for your particular operation.

Fine Educational Facilities

The Niagara Frontier area is fortunate in having outstanding educational institutions at all levels.

The largest school of higher learning in the area is the University of Buffalo.

Chartered as a university in 1883, the school has a campus of 309 acres. Divisions include College of Arts and Sciences, School of Education, College of Business Administration and College of Nursing. The Graduate School offers M.A. and M.S. degrees.

Excellent training in technical studies is provided by the Erie County Technical Institute. This school offers two-year courses and an evening and extension program.

Courses offered are in technical-voca-



Downtown Buffalo's major landmark is McKinley Monument in the center of Niagara Square. The tall building to the upper left of the monument is the Buffalo City Hall. Other buildings around the square are the Hotel Statler, State Building, and the Federal Court Building.

Founded in 1846, the university is in the city and has a campus consisting of 178 acres. Divisions of the institution are also located in other sections of the city. The university is co-educational and is privately controlled and endowed.

Divisions of the school are as follows: Schools of medicine, pharmacy, law, dentistry, business administration, education, social work, nursing, and engineering, and College of Arts and Sciences; also, Graduate School of Arts and Sciences, Division of General and Technical Studies, Millard Fillmore College (evening), and the summer session.

Niagara University, conducted by the Vincentian Fathers of the Roman Catholic Church, is near the City of Niagara Falls on the very brink of the river gorge.

tional education at the level of junior college. High school graduates are offered a basic preparation for technical occupations in the fields of construction, technology, dental hygiene for women, electrical technology, food service administration, industrial chemistry, mechanical technology, metallurgical technology and optical technology.

Canisius College, in the heart of Buffalo, was founded in 1870 and chartered by the State of New York in 1883. It is conducted by the Fathers of the Society of Jesus of the Roman Catholic Church. The college's various divisions confer B.A., B.S. and B.B.A. degrees, and it has day and evening sessions.

D'Youville College, chartered in 1908, is operated in Buffalo by the Gray Nuns of the Sacred Heart for the higher education of women. It offers

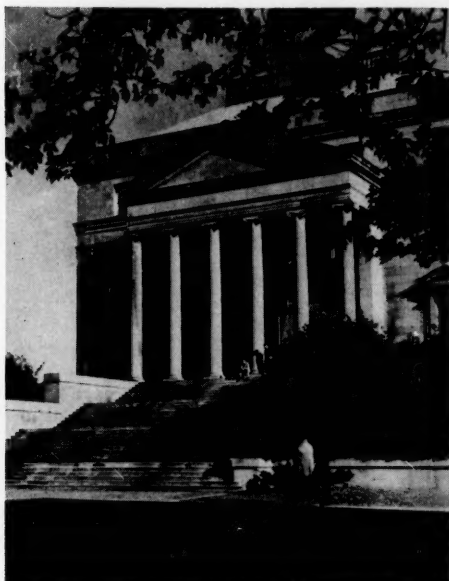
B.A. and B.S. degrees, with major fields of concentration in English, Latin, chemistry, modern foreign languages, mathematics, history and social studies, sociology and biology.

Immediately outside the city limits of Buffalo in the Town of Amherst is Rosary Hill College. It is a college for women conducted by the Congregation of the Sisters of St. Francis of Penance and Christian Charity of the Roman Catholic Church. Degrees offered include A.B., B.S. and Bachelor of Music.

Insofar as elementary and high schools are concerned, the area is well supplied with both public and private schools with high scholastic standards.

In Buffalo, for example, there are seven academic and seven vocational high schools. Enrollment in the former totaled 11,708 in the school year just past, while enrollment in the vocational schools was 5,903. In addition, the 78 elementary schools had an enrollment totaling more than 47,000. In the whole diocese there are 234 parochial schools

wherever you may locate on the Niagara Frontier, your children and the children of your employees have the opportunity of attending excellent schools and colleges close by. It is important, too, that the area has extensive research facilities to aid business. Many kinds of scientific research, including a wide variety of nuclear studies, are conducted at the University of Buffalo. In addition, the famous Cornell Aeronautical Laboratory is here, and there are also 60 private research facilities.



The Lockwood Library is part of the University of Buffalo, the largest school in the area. Among other schools of higher learning are Niagara University, the Erie County Technical Institute, Canisius College, D'Youville College and Rosary Hill College for women, and the Buffalo College for Teachers.



The new Kleinhans Music Hall and Municipal Stadium was a gift from civic-minded Mr. and Mrs. Edward L. Kleinhans. The main auditorium seats 3,600 and has been acclaimed nationally for its outstanding quality for musical performances. The renowned Buffalo Symphony orchestra performs regularly here. Civic Stadium has seated 50,000 for a big event.

The Buffalo College for Teachers, State University of New York, is a tuition-free institution conducted by the state university to provide teachers needed by New York's vast school system. Founded in 1869, it is the largest of 11 State University Teachers Colleges operated at various points in the state. It has a campus of 54 acres.

Bachelor of Education degrees are offered with a major in each of the following: art education, early childhood education, early secondary education, elementary education, education for exceptional children, elementary school administration or supervision, home economics and industrial arts. Also, a M.S. degree is granted in all of these areas except early childhood education and early secondary education.

with a total enrollment of 90,810.

Tonawanda has one junior high school, with 761 enrollment, and a senior high with 705 students at last count. The seven elementary schools had 2,427 enrolled, while the one parochial school had 905 students.

North Tonawanda's senior high school had 1,331 enrolled, while the junior had 1,207. Enrollment at the eight elementary schools totaled 3,291, and six parochial schools had 1,590 students.

Niagara Falls has two senior high schools, four junior highs, a vocational school and 23 elementary schools. There are also 13 Catholic parochial schools, a Lutheran parochial elementary school, and an Episcopal boys boarding and day school.

You can see from these figures that

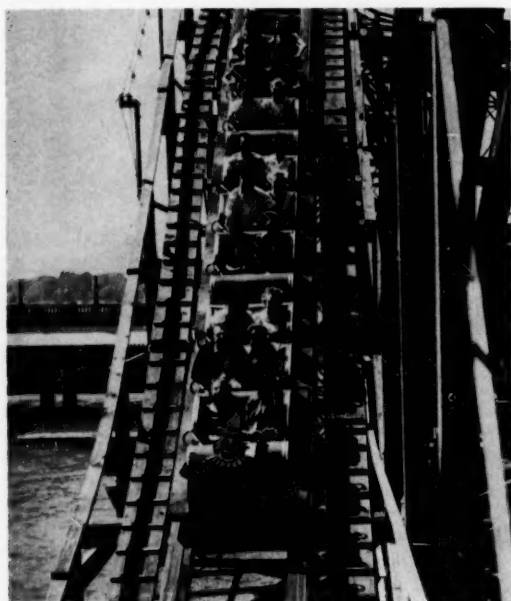
The City of Buffalo has a police force totaling 1,707 persons. Included are 1,354 regular members, plus 168 civilian and 185 school crossing guards. The fire department has approximately 1,000 members and all modern fire fighting equipment.

Buffalo has a high capacity sewage treatment plant which is important to many types of industries. Industrial sewerage charges based on water usage for quarterly billings are 50 cents per thousand for the first 9,000 gallons, 35 cents per thousand for the next 9,000 gallons, and 20 cents per thousand for anything over 18,000 gallons.

In the field of communications, newspapers here are playing a large part in the progress of the entire metropolitan area. These papers are the *Buffalo Evening News*, *The*



The Niagara Frontier boasts several public bathing beaches such as Grand Island State Park Beach. This area is the starting point for thousands of motorists who annually visit Canada, entering over the famous Peace Bridge where the Niagara River meets Lake Erie.



Crystal Beach, in Canada across Lake Erie from Buffalo, is a popular entertainment and bathing resort. Some 20,000 Buffalonians maintain summer homes on the Canadian shores within 20 miles of the city.



Courier-Express (mornings and Sundays), the *Tonawanda News* and The *Niagara Falls Gazette*. The area also has several weekly community publications which have been established for many years.

Twelve radio stations and three TV stations serve the Frontier area to assure the listening public a complete assortment of programs originating here or carried on national and international networks.

There are 425 churches in Buffalo,

including 143 Catholic and 13 Jewish. The 20 hospitals here have a total of 9,501 beds and 621 basins. Included is a 955-bed Veterans Administration Hospital.

For visitors to the area there are 15 first class hotels, with a total of 6,800 rooms, and there are 25 motels providing 2,200 units. These accommodations, plus other attractions, make Buffalo popular as a convention city.

At Tonawanda the police force includes 30 full time men plus an auxiliary force.

The city has a sewage treatment plant with capacity greatly in excess of peak demand. There is no sewer use charge.

Local hospital beds available average 2.03 per 1,000 population, and there is an average of one physician per 1,000 population.

Tonawanda has 12 Protestant churches and one Catholic church.

Adjacent North Tonawanda has a 32-man police force, plus auxiliary. Its sewage treatment plant also has a capacity in excess of peak demand, and there is no sewer use charge.



The Albright Art Gallery is widely known for its collection of old masters and modern paintings and sculptures. Many other cultural facilities are available in the area such as the Buffalo Historical Society Museum and the famous Buffalo Museum of Science.

Delaware Park Lake is an excellent example of how natural beauty has been enhanced by careful landscaping. The Buffalo Historical Museum is on the right and the buildings of the State Teachers College are on the left.



A number of excellent municipal golf courses are available in the Frontier area. The city of Buffalo, for instance, has 4 courses as well as 10 swimming pools, 84 tennis courts and numerous other sports facilities.



Buffalo Historical Society Photo

The hospital bed and physician ratio is the same as for Tonawanda. North Tonawanda has 23 Protestant churches, and three Catholic.

Of interest at Niagara Falls is a modern airport which is owned by the city and which is about four miles from the downtown section. The airport has a runway 9,100 feet long and 152 feet wide. It services military planes, as well as commercial, industrial and private planes. The airport is listed as a port of entry.

The city has modern police and fire

departments, and it has two hospitals with the latest and most modern scientific equipment and facilities.

Niagara Falls has a daily newspaper and, as a resort city, has a number of fine motels and hotels in the area. Virtually every major denomination is represented by one or more churches, including Baptist, Catholic, Episcopal, Lutheran, Methodist, Presbyterian and Jewish.

Culture and Recreation

Since the Niagara Frontier is a rela-

tively compact area, the cultural and recreational attractions in any part of the two counties are quickly and easily reached by both local citizens and visitors.

In Buffalo there are sports of every kind for young and old. There is bathing at Crystal Beach and Beaver Park, boating and fishing, International League baseball, golfing and horse racing in summer, big-time professional and collegiate football in Fall. In the winter there is American League hockey and top-flight boxing and wrestling.

SUMMARY OF REGISTERED COMMUNITY AUDIT DATA

TONAWANDA, NEW YORK

Population	city	county	Std. Met. Area
1950 Census	14,617	899,238	1,089,230
1960 Estimate	21,000	1,080,000	1,269,000
1970 Projection	23,000	1,250,000	1,500,000
Approx. percentages: White: 99% Non-white: less than 1%			
Foreign born: 8%			

Present Employment	Male	Female	% Mfg. workers in unions
Manufacturing	3,911	669	85%
Non-manufacturing	792	437	Unemployment 10.9% of labor force
Latest strikes affecting 5% or more of labor force 2			

Prevailing Wage Rates

Skilled	\$2.35 to \$3.28 per hour
Semi-skilled	\$1.29 to \$2.71 per hour
Unskilled	\$1.10 to \$2.60 per hour

Vocational training facilities: High School—Erie County Tech. Institute
 Engineering Colleges: University of Buffalo
 Universities: University of Buffalo, Canisius College, Niagara University
 Graduate Schools: University of Buffalo, Canisius College, Niagara University
 Research Institutions: University of Buffalo, Cornell Aeronautical Laboratory

Taxes

Municipal rate \$2.86 per \$100 val.
 County rate \$1.70 per \$100 val.
 Are tools, machinery taxed? no
 Exemptions for new industry None

Civic Characteristics

Local government: () strong mayor (X) limited mayor
 () Manager-council () commission
 Area within city limits 3.58 sq. mi. Area devoted to parks .15 sq. mi.
 Police force: 30 full time men plus auxiliary
 Number high schools: 1 Jr., 1 Sr., total enrollment: 761,705, grades included 7-12
 Number parochial schools: 1 total enrollment 905, grades included K-8
 Number elementary schools: 7 total enrollment 2,427, grades included K-8
 Number first class hotels none, Motels none
 Hospital beds per 1,000 population 2.03 (Local) Doctors per 1,000 population 1
 Number churches: Protestant 12, Catholic 1, Jewish 0
 Best recreation attractions: Niagara Falls—Area state parks
 Main cultural attractions: Buffalo-Kleinhans Music Hall, Albright Art Gallery, Museums of Science & History
 College/professional sports: Football—Basketball
 News media, radio TV: One local Daily, two Buffalo Dailies, 12 Buffalo radio, 3 Buffalo TV
 Is sale of alcoholic beverages legal in package form: yes, mixed drinks: yes

Water

Municipal/county water source: (X) stream () reservoir
 () wells () other
 Pumping capacity 6,500 gal./min. Peak demand 3,900 gal./min.
 Industrial rate/mo/100 cu. ft. \$.25 first 100,000 scale down to .07 over 10 million gal.
 Capacity sewage treatment plant 13,000,000 peak demand 3½, 000,000
 Sewer use charge none Is garbage pick-up provided? yes

NORTH TONAWANDA, NEW YORK

Population	city	county	Std. Met. Area
1950 Census	24,731	189,992	1,089,230
1960 Estimate	33,000	225,000	1,269,000
1970 Projection	40,000	250,000	1,500,000
Approx. percentages: White: 99% Non-white: less than 1%			
Foreign born: 8%			

Present Employment	Male	Female	% Mfg. workers in unions
Manufacturing	4,252	1,325	85%
Non-manufacturing	926	742	Unemployment 10.9% of labor force
Latest strikes affecting 5% or more of labor force None			

Prevailing Wage Rates

Skilled	\$2.35 to \$3.28 per hour
Semi-skilled	\$1.29 to \$2.71 per hour
Unskilled	\$1.10 to \$2.60 per hour

Vocational training facilities: High School—Erie County Technical Institute
 Engineering colleges: University of Buffalo
 Universities: University of Buffalo, Canisius College, Niagara University
 Graduate Schools: University of Buffalo, Canisius College, Niagara University
 Research Institutions: University of Buffalo, Cornell Aeronautical Laboratory

Taxes

Municipal rate \$3.09 per \$100 val.
 County rate \$1.36 per \$100 val.
 Are tools, machinery taxed? no
 Exemptions for new industry none

Civic Characteristics

Local government: () strong mayor (X) limited mayor
 () Manager-council () commission
 Area within city limits 10.5 sq. mi. Area devoted to parks .25 sq. mi.
 Police force: 32 full time men plus auxiliary
 Number high schools: 1 Jr., 1 Sr., total enrollment: 1,331, 1,207, grades included 7-12
 Number parochial schools: 6 total enrollment 1,590 grades included K-8
 Number elementary schools: 8 total enrollment 3,291 grades included K-8
 Number first class hotels none, Motels none
 Hospital beds per 1,000 population 2.03 (local) Doctors per 1,000 population 1
 Number churches: Protestant 23, Catholic 3, Jewish 0
 Best recreation attractions: Niagara Falls—Area state parks
 Main cultural attractions: Buffalo-Kleinhans Music Hall, Albright Art Gallery, Museums of Science & History
 College/professional sports: Football—Basketball
 News media, radio, TV: One local Daily, two Buffalo Dailies, 12 Buffalo radio, 3 Buffalo TV
 Is sale of alcoholic beverages legal in package form: yes, mixed drinks: yes

Water

Municipal/county water source: (X) stream () reservoir
 () wells () other
 Pumping capacity 8,500 gal./min. Peak demand 3,900 gal./min.
 Industrial rate/mo/100 cu. ft. \$.28 first 10,000 scale down to .07 over 25,000,000 gal.
 Capacity sewage treatment plant 11,000,000 peak demand 5½, 000,000
 Sewer use charge none Is garbage pick-up provided? yes

This summary illustrates a few basic differences in two typical communities within the Niagara Frontier area. Even though they are close geographically, certain differences do make careful comparison necessary. Complete Registered Community Audits are available on Buffalo, Niagara Falls, Tonawanda, and North Tonawanda.

Entertainment the year around is provided by more than 100 night clubs and 54 theaters, and there are about 1,700 restaurants.

Buffalo has 10 public parks with a total of 3,000 acres. Delaware Park, with 365 acres, has a big lake and a \$3 million zoo. There are also numerous indoor and outdoor swimming pools, skating rinks, baseball diamonds, soccer fields, playgrounds, and so on. There

are six town clubs, four boat clubs and 14 nearby country clubs.

Memorial Auditorium, used for many types of sport and recreational events, can seat from 8,424 to 15,000 persons, depending upon the type of event. There is a total of 128,566 square feet of exhibition space.

As mentioned previously, the Kleinhans Music Hall and Municipal Stadium have been acclaimed nationally for

their excellence. The Music Hall was made possible through the gift of the late Mr. and Mrs. Kleinhans of Buffalo. The main auditorium in the modernistically designed structure seats 3,000.

The Civic Stadium has 37,064 permanent seats in stands and has seated 50,000 for a big event. There are several other smaller stadia.

Providing a strong cultural background for the Frontier are the Buffalo

Historical Society Museum, Albright Art Gallery and the Buffalo Museum of Science.

The Historical Museum served to house the New York state exhibits at the Pan-American Exposition here in 1901 and was later given to the Buffalo Historical Society. The latter was organized in 1862, with U. S. President Millard Fillmore as its first president.

The Art Gallery is well-known in international art circles for its collection of old masters and modern paintings and sculptures. The gallery was given to the city in 1905 by the late John J. Albright.

Built by the city in 1929, the \$1 million Science Museum was the first museum in the world to demonstrate a new idea in museum practice whereby a complete running story of every branch of natural science is presented visually.

The Buffalo and Erie County Public Library, with 1,156,000 volumes, consists of three central locations and 20 branches, including the Grosvenor (reference) Library. It contracts with 26 libraries in Erie County. Niagara Falls also operates a public library with several branches.

Niagara Falls

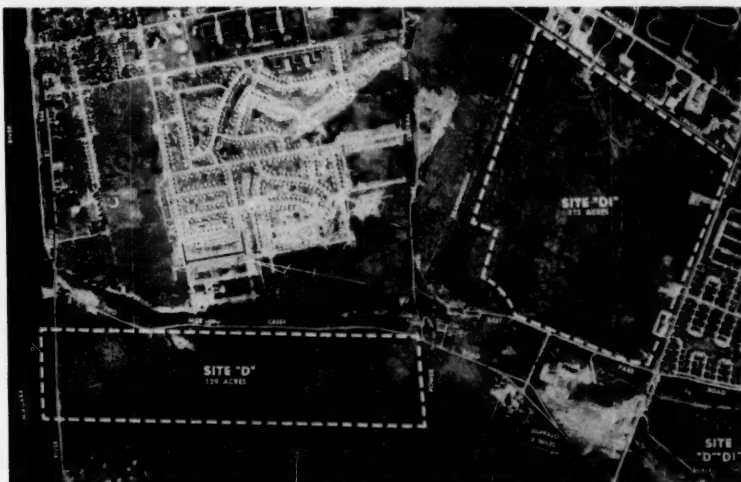
In addition to all this, the Frontier possesses, of course, one of the world's most outstanding scenic attractions—mighty Niagara Falls, from which the city takes its name.

The 170-foot cataracts consist of the American Falls and the Canadian or Horseshoe Falls. Formation of the Falls is due primarily to the difference of 325 feet between the level of Lake Erie and the level of Lake Ontario—Lake Erie being the higher. The normal flow over the Falls is 25,000 tons of water per hour, or 222,400 cubic feet per second.

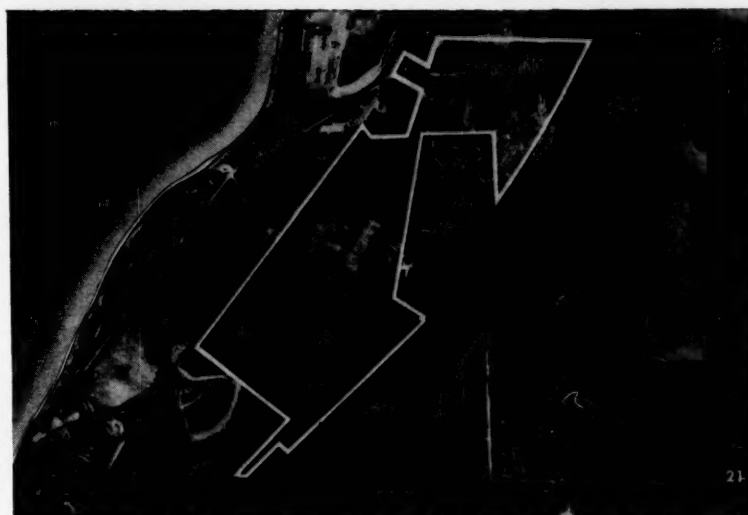
At night huge batteries of colored lights, constantly changing, are used to produce a fantasy of color on the Falls, providing a unique sight for the thousands of visitors who regularly throng the area.

Besides the Falls themselves, the river below with its whirlpool and rapids provides more spectacular sights, and there are numerous other features in the area, on both the American and Canadian sides, which are popular with visitors.

The Falls are only a short drive from any part of the Frontier area, and for those who come in by train or plane there a number of motor tours giving transportation to the points of interest around the Falls.



Excellent industrial sites abound in the Frontier area. These particular tracts are along the Niagara River and served by the New York Central. The Southwest portion of Site "D" is in Tonawanda Township while the northwest portion is in the City of Tonawanda. The other site is wholly within the Township.



This site near the lake is owned by the Bethlehem Steel Company located just north. Served by the South Buffalo Railway, the tract is available to steel-consuming industries. Many other sites such as those illustrated here are made available throughout the entire area.

Available Industrial Sites

Another factor of top importance to the site seeker is the almost unlimited choice of attractive industrial sites still available in the Niagara Frontier Area. This is true within the City of Buffalo, in Erie County and in Niagara County.

There are no topographical limitations to restrict the development of industries, and because there is ample space in which to build and expand, plant buildings can be constructed in open areas where they may be made aesthetically attractive.

The present industrial region is long

and relatively narrow, extending from Niagara Falls southward along the Niagara River and Lake Erie into the town of Hamburg.

Attractive land is available in every industrial zone. Many tracts are the choicest type of dry, flat land, near Belt-line and trunk railroads, and close to utilities.

An outstanding example of what is being done on the Frontier to develop further industrial growth is the newly-organized Niagara Industrial Park. Comprising 1,200 acres of land, it is located in the Town of Wheatfield, be-



Coordination and communications have sparked Niagara Mohawk's development program, covering 22,000 square miles of New York State. Richard F. Torrey (right) confers by telephone with one of the regional offices. Area Development Analyst Allen Lynch (left) briefs Niagara Mohawk's Vice President Arthur W. Evans on current projects.



Of special importance in Niagara Mohawk's area development programs are regional office activities. Rob Roy Macleod (left) Commercial Vice President of the Western Division goes over a new program with Charles J. Wick, administrative vice president of the Western Division.

tween Niagara Falls and North Tonawanda.

President of the new industrial organization is Jack Gellman, Niagara Falls attorney, and the other principals are all prominent leaders here.

Planning and engineering for the park is being done by Stone & Webster. It will be a completely planned industrial district, all on level land. It will have all utilities, full highway access, a rail line right through the middle, and an unlimited supply of raw water. It also is situated in such a way that dock facilities could be built if needed.

According to Mr. Gellman, the park will be designed for heavy industry. It is also planned that the park corporation will build plants, to the exact specifications of the tenants, for long-term lease. It is expected that the project will be set to go by late Fall of 1959.

"We have great confidence in the future of this area," Mr. Gellman declared, "And we hope to get \$100 million worth of new industry in Niagara Industrial Park within the next few years."

An additional interesting example of an unusual expression of confidence in the Frontier's industrial future is the move recently made by Robert M. Holder, an Atlanta, Georgia, developer.

Mr. Holder has bought a tract of 500 acres, located along the Gardenville Branch of the New York Central Sys-

tem, in what is known as Gardenville Industrial Center, one and a half miles east of Buffalo. It is understood that the area will be developed into an industrial park.

The I.D. Team

To help you with any and all details in connection with selecting a plant site in the Niagara Frontier area, there are several well-qualified and aggressive groups at your service.

Among these are the chambers of commerce, utilities and railroads serving the area, banks and other agencies.

At the Buffalo Chamber, eager and capable Charles F. (Chuck) Light, the general manager, heads up a team of experts armed with all the tools to tell you the story of what the Metropolitan Area has to offer.

Aid is available, too, from George W. Garrett, executive vice president of the Chamber of Commerce of the Tonawandas, Inc., and from Charles B. Read, manager of the industrial department of

the Niagara Falls Chamber of Commerce.

To give you the big picture for the entire area is Niagara Mohawk which has offices not only at Buffalo but also in the Tonawandas area and at Niagara Falls. The power company's Area Development Department is headed by Richard F. Torrey as director. Although his office is at the firm's general headquarters in Syracuse, close liaison is maintained with all the district offices, and the staffs of these in this area can pinpoint anything you want to know about the Frontier.

In its effort, Niagara Mohawk's Area Development Department has a two-pronged program:

One is community development, designed to encourage and assist in the balanced, sound and orderly development of the residential, commercial and industrial complex of the communities of the more than 22,000 square miles of area served by the company. The other part of the program is to seek additional industry for those communities in the franchise area where it would be desirable and to assist in the retention of existing industry. The Department's plant location services include:

1. Single source information—The department is equipped and prepared to provide you with comprehensive information relating to all phases of a plant location project, such as markets, transportation, labor, raw materials, utilities, water and neighboring industries.

2. Sites—The department maintains a continuing inventory of industrial sites throughout its service area, and complete information is available on all factors affecting the site and related to your requirements.

3. Buildings—Through the company's district offices an up-to-date inventory of available industrial buildings is maintained in the Area Development office.

4. Communities—Detailed analysis of community facilities, taxes, government, and the multitude of other characteristics important to your industry.

5. Your inspection—The department will make complete arrangements for your personal inspection of communities and sites and for the contracts with local sources of information as you may desire.

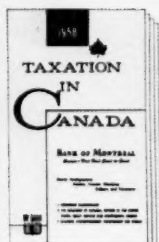
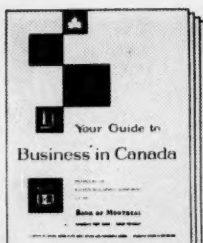
Cooperating with Niagara Mohawk in furnishing site information are the development departments of the railroads serving the area, the chambers of commerce, banks and other agencies.

This editorial appraisal of the Niagara Frontier area was conducted under the auspices of the Niagara Mohawk Power Corporation. Reprints are available from: Director, Area Development, Niagara Mohawk Power Corporation, 300 Erie Blvd., Syracuse 2, New York.



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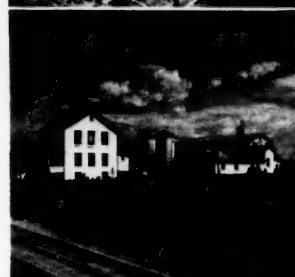
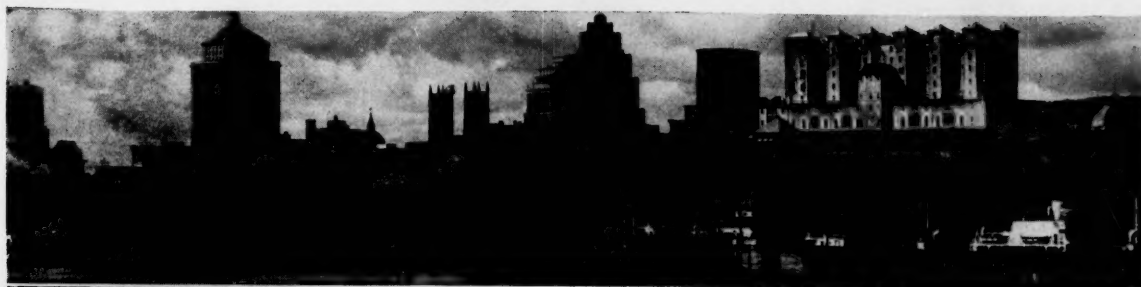
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PROGRESS IN QUÉBEC

MINES

1941 - \$ 99,700,000
1957 - \$419,200,000

FORESTRY

1941 - \$ 77,300,000
1957 - \$285,000,000

ELECTRICITY

1941 - 4,321,000 h.p.
1958 - 9,858,000 h.p.

AGRICULTURE

1941 - \$276,400,000
1957 - \$626,000,000

MANUFACTURES

1941 - \$1,841,100,000
1957 - \$6,850,000,000

POPULATION

1941 - 3,312,000
1958 - 4,884,000

Québec



Photographic Survey Corp. Ltd. Photo

With the Detroit River in the background, this is part of the principle industrial section of Windsor, Ontario, Canada's southernmost city. Windsor has long been a manufacturing center, and current forecasts indicate that \$28.8 million will be spent during 1959 on plant and equipment in the Greater Windsor area.

OTTAWA. Have you looked at a map of North America lately? If not, study one just to refresh your memory, and notice particularly the size of our neighbor to the north.

This vast land of Canada, stretching over an area of 3,577,163 square miles, stands today as one of the outstanding places left in the world where the development potential has barely been scratched.

Fabulously rich in natural resources, Canada during recent years has been attracting increasing attention from U. S. industrialists, and there has been a steady growth in the number of plants being built here by firms from the States. This is, literally, only a beginning, and that's why Canada deserves your attention in both your short and

long range planning.

Although the population of Canada—around 17 million—is small in relation to the size of the country, the market is growing at an ever-accelerating rate, and it is also very prosperous. In addition, some plants located close to the U. S. Canadian border can serve the market on both sides while being able to draw easily from Canada's highly varied and well nigh unlimited store of raw materials.

How the nation's growth has been proceeding may be seen in this comment from a recent report of Canada's Department of Trade and Commerce: "Business investment spending in 1958, though less than in the previous year, still entailed a substantial rate of expansion in Canadian industry at

large. Capital outlays by business alone, exclusive of housing and all forms of social capital, comprised 15 per cent of Canada's Gross National Product. When all forms of capital investment are included, the proportion amounted to 26 per cent which was higher than in any year prior to 1955.

"Though much of the actual plant construction had taken place in preceding years, it was in 1958 that a major portion of this new capacity actually came into operation. In fact, throughout industry at large, the rate of introduction of new capacity was probably as great in 1958 as in the preceding year.

"Within this two-year period Canadian industry took on major new dimensions. Perhaps the most striking



CANADA

A country of vast land area, tremendous untapped natural resources, and unusual cultural and scenic advantages, Canada today offers you unusually attractive possibilities for new industrial investment.

example was the sudden burgeoning of Canada's new uranium industry which grew from a capacity of about 2,600 tons in 1956 to 15,000 tons in 1958. At the present time, uranium oxide is Canada's largest mineral export."

The proportionate growth of capacity in other major resource lines is indicated in an accompanying chart.

Approximate Percentage Increase in Capacity in Two Year Period 1957 and 1958

Commodity	Per Cent Increase
Newsprint	15
Woodpulp	15
Aluminum	16
Nickel	9
Copper	15
Asbestos	13
Iron ore	26
Petroleum crude	60

Cement	25
Iron and steel	15
Electric power	25

Considering that the annual industrial growth rate in the U. S. is about 3 percent per year, this impressive growth pattern serves to give you some idea of what can be done in booming Canada. And, the huge development is continuing.

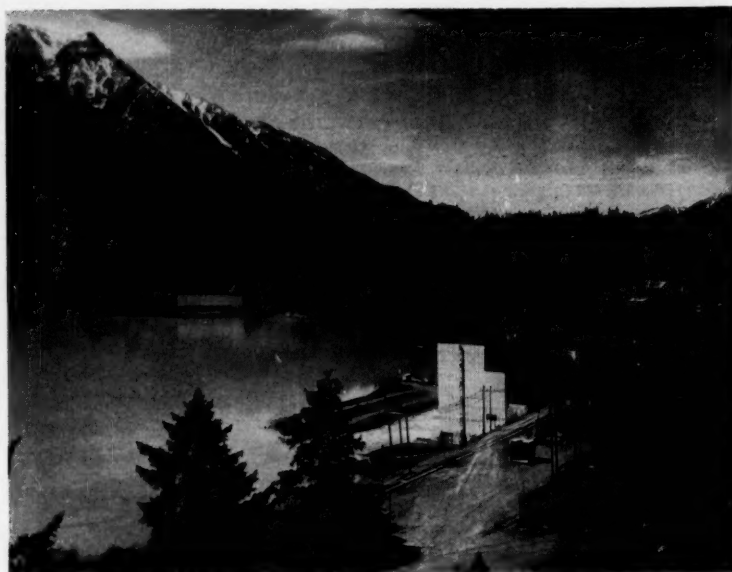
Observe, for instance, that investment plans—both private and public—call for total capital expenditures of \$8.3 billion in 1959. This figure represents an aggregation of the investment intentions of individual business establishments, institutions, house-builders and all levels of government, as reported in a recent survey. Such a capital expenditure program would

represent a continuation of capital spending at close to the high level of 1958. Within the total, outlays for construction would be slightly below those of last year, while expenditures for machinery continue at about last year's rate.

To give you an idea of development prospects in specific segments of the Canadian economy, and to present the growth factors influencing these prospects, I.D. asked for the views of a group of top leaders. Their comments proved to be highly informative.

The Banking System

Of particular interest, always, to the site seeker are the financial resources of the area under consideration. In



In the shadow of snow-covered mountains is British Columbia Electric's Burrard thermal electric generating station on the north shore of Burrard Inlet. Between 1961 and 1964, four 200,000-horsepower units will be installed here, making it the company's major source of power. Two additional generating units could be added if needed. Full development would cost about \$100 million.

the case of Canada, these resources are considerable. How the nation's banking system has grown and the services it renders is told by H. W. Thomson of Montreal, president of The Canadian Bankers Association. He says:

"The story of banking in Canada is one of constant progress and growth in keeping with the growth, development and increased banking needs of the nation.

"During the past 10 years Canada has been expanding at a rate equalled by few other countries in the world. Its population has increased by 35 per cent, employment by 18 per cent and its gross national product by 133 per cent. At the same time, the chartered banks of Canada have kept pace, with similar remarkable, dynamic growth.

"The 10-year period has been marked by the discovery and development of vast new natural resources, including iron, oil and uranium; the establishment of many new industries and expansion of others; the influx of immigrants in the hundreds of thousands; the founding of many new communities and the rapid growth of others, and an unprecedented public demand for goods and services. For the banks, it has been a period of great challenge—a challenge successfully met.

"In addition to great growth in

banking in the physical sense, such as in the number of branches, the increase in the number of people using bank services has been such that in Canada today, practically everybody is a bank customer and Canadians probably use bank services to a greater extent than any other people.

"In the past 10 years, total deposits in the chartered banks have increased by almost 60 per cent and total loans have more than doubled. Bank assets have grown by more than 60 per cent and capital funds of the chartered banks, in the past five years alone, have been more than doubled, to cope with the expanded volume of business, to finance growth and such developments as the big increase in bank branches.

"Last year's growth in the banking system reflects the trend of recent years. The chartered banks opened additional domestic branches at the rate of three a week, today's total exceeding 4,700, compared with 3,450 branches 10 years ago. Additional deposit accounts were opened by the public at the rate of 2,000 every banking day, with the number rising in the past decade from 8,000,000 to nearly 12,000,000, or the equivalent of one for every adult Canadian. (The country's total population is slightly more than 17,000,000.) The past year, too, saw record levels achieved in savings

and other deposits, and new highs in many other aspects of Canadian banking.

"To handle the country's increased banking needs, the chartered banks have increased their staffs by some 50 per cent over the past 10 years, adding 20,000 men and women to their payrolls.

"Statistics on all phases of Canadian chartered banking point up to the same fact—that in Canada more people are using bank facilities to a greater extent than ever before. In constantly expanding to provide this service, the chartered banks have grown into very big institutions, three of the nine being among the 15 largest banks in the free world, based on deposits, and seven among the first 85. They are big by any standard.

"The nine chartered banks constitute Canada's commercial banking system, and are both commercial and savings banks. Each is privately owned and consists of a head office and a network of branches. This branch bank system has proven—and continues to prove—ideally suited and of vital importance to a country like Canada, young, big, with great and varied natural resources, and a relatively small and scattered population.

"Keeping in step with the country's growth and development, the chartered banks—called chartered because they do business under a charter granted by the parliament of Canada—have been opening branches at the average rate of 125 a year for the last 10 or 12 years. Today, they have more than 4,700 throughout the nation, with another 160 branches in 18 other countries and eight territories of the West Indies Federation. There has been a Canadian banking link with the United States, for example, since 1818.

"In addition, the chartered banks have agents or correspondents all over the world, and these foreign links are one of the most valuable services the banks provide. They play a big part in connection with Canada's status as the fourth trading nation of the world. Through his branch bank, the Canadian in the smallest community may do business with the rest of the world and the rest of the world may do business with him.

"Canada has the heaviest concentration of banking offices, in relation to population, of any country. There is a domestic branch of a chartered bank for every 3,700 Canadians, with al-



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Correspondents wherever men trade.

CANADA

most every community of any size in Canada having at least one branch of one of the chartered banks. While the head office of each chartered bank is the administrative centre, each branch is a self-contained banking unit. Thus the resident of the small, remote community—these modern times it might even be deep within the Arctic and serviced by air—is enabled to enjoy the same general range of banking services at the same general level of cost as the resident of the big city.

"The reason for this is that banking in every part of Canada is governed by one basic law, the Bank Act. Banking in Canada is under the exclusive jurisdiction of federal authorities and, hence, there are uniform standards and facilities in all parts of the country.

"In the Canadian financial system, the chartered banks provide the bulk of short-term credit. They are the main repositories for the savings of the Canadian people. While there are only nine of them, they are highly competitive in all phases of their operations, particularly because of their extensive branch networks.

"The chartered banks are: Bank of Montreal, The Bank of Nova Scotia, The Toronto-Dominion Bank, The Provincial Bank of Canada, The Canadian Bank of Commerce, The Royal Bank of Canada, Banque Canadienne Nationale, Imperial Bank of Canada and The Mercantile Bank of Canada."

Extensive Power Resources

Like banking, the power resources available and planned are of prime importance to the plant builder.

In this connection President J. A. Fuller of the Shawinigan Water and Power Company comments that, "Availability of electric power, chiefly from abundant water power resources, is a major factor in the economic development of Canada." He says further:

"The country's economy, predominantly agricultural at the turn of the century, has since then gradually become an economy dependent on industrial production.

"In recent years the transition from farm to factory has taken place at an ever increasing pace. Greater and greater production of electric power to meet the demands of expanding industry and a growing population has been necessary. And all evidence indicates that these demands will continue to increase.

"In the 10 years from 1948 to 1958, electric energy made available in Canada increased from some 47 billion kilowatthours to 97 billion kilowatthours. This growth pattern of about seven per cent average annual rate of increase, or a doubling every 10 years, has become fairly well established over the long term. In the United States and other countries predictions are for rates of growth of roughly the same order. There seems to be no reason, therefore, why Canadian utilities should project into the future at a more conservative rate than seven per cent per annum, which will result in an amount exceeding 400 billion kilowatthours by 1980.

"Canada's gross national product (in constant dollars) has been increasing, since 1948, at an average annual rate of some 4.5 per cent. This rate has been used by the Gordon Commission on Canada's Economic Prospects in its projection of the overall economy. Also, the Commission has projected Canada's population growth at an annual rate of about 2.5 per cent. It is clear, therefore, that the increasing demand for electric energy which is expected to continue into the foreseeable future is almost an explosive phenomenon.

Domestic Use Gains

"There has been a gradually changing pattern of the utilization of electric service in Canada by the various consumer classifications. Originally, the large primary industries constituted the chief market for power; these were often established close to hydroelectric developments. However, the building of transmission networks soon made it feasible to transport the energy to population centres, where its use by secondary industries and commercial enterprise grew rapidly. Of recent years, the greatest gains have been shown in the domestic use of electric energy; and it is expected that this trend will continue.

"Turning to the supply side of the picture, some areas of Canada have been generously endowed by nature with hydroelectric potential. The Department of Northern Affairs and National Resources, Water Resources Branch, reports a total potential of some 50 million kilowatts, based on ordinary six-months flow. A considerably higher installation than that based on ordinary six-months flow is usually

practicable. It is also possible that storage developments, including pumped storage, and diversion schemes will further increase Canada's commercial water power potential, perhaps even up to 75 million kilowatts. Of this total, roughly one-third is to be found in Quebec, a little less than a third in British Columbia, one-eighth in Ontario, one-eleventh in Manitoba, followed by the Yukon Territory, Newfoundland and Labrador, and the other provinces. Installed turbine capacity in Canada amounted to almost 17 million kilowatts at the end of 1958, or just under one-quarter of the estimated total hydro potential. Of this 7½ million kilowatts is in Quebec, 5-1/3 million in Ontario, 2½ million in British Columbia, and substantially smaller amounts in the other provinces.

"The annual survey of capability and load, carried out by the Dominion Bureau of Statistics, shows a net generating capability for Canada in 1958 of 18,600,000 kilowatts, which is almost double the 1950 amount. In 1950, this capability was derived about 91 per cent from hydro generation and nine per cent from thermal, or a ratio of ten to one. These proportions in 1958 were 85 per cent hydro and 15 per cent thermal, or a ratio of five and a half to one; and it has been estimated that by 1980 the ratio of hydro to thermal generation in Canada will become two to one.

"Two of the provinces with relatively large shares of Canada's hydro resources have reached the point where they are generating substantial amounts of thermal power. Very little undeveloped hydro potential remains in Ontario, and Manitoba's untapped resources are at considerable distances from the centres of load demand. The Atlantic Provinces, apart from Labrador, are poor in hydro and they have been relying mainly on thermal generation for many years. Saskatchewan and Alberta, although they do have some hydro resources, also are blessed with almost unlimited supplies of low cost fuels for use in steam plants.

"An important reason for the increase in thermal installations in Canada is the manner in which they can be integrated into a predominately hydro system. Their characteristics permit them to be used effectively to supply base load requirements, to meet peak demands, or as energy producers in conjunction with hydro plants during periods of low river flow. It is for these reasons that a number of large

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thermal stations are being built in British Columbia.

"Last year Canada's electric utilities spent some \$700 million on new plant and equipment to supply the country's power needs. It has been estimated that by 1980 such capital expenditures will be running at the rate of about \$2,000 million annually."

The dramatic growth of power facili-

Through the increase in population and industry, brought about in a large measure by the company's aggressive promotion of the area, it was serving 87,500 customers in May of this year. The power firm is a pioneer in industrial development on an organized basis, having established a full-fledged Industrial Development Department 41 years ago.

of Mines and Technical Surveys for Canada, observes:

"Available returns for the first four months seem to support a qualified view that Canada will establish a new record this year in the value of its mineral output. Qualified mainly because the percentage increase in production over the corresponding period of 1958 is relatively small and because the outputs of some of the major items on the list were lower than in the 1958 period.

"These losses, however, were largely, if not more than offset by an almost threefold increase in the production of iron ore compared with the first four months of 1958 and by substantial increases in the production of uranium oxide, gypsum, lead, clay products, natural gas, crude petroleum, salt and a few others.

"Although the world demand for most products of Canada's mines is still considerably below that of early 1957, it is more active than in 1958 and gives fair indication of improving. The steady improvement in business conditions in the United States in recent months is an important factor in the demand as that country is the leading importer of many of the metals and minerals produced in Canada.

"With the exception of a relatively slight decline in 1958 from 1957, the previous record year, the annual value of mineral production in Canada has been increasing steadily since 1947. It reached the billion dollar mark in 1950 and exceeded two billion dollars in 1956. The metals in 1958 accounted for 54 per cent of the total, the fuels for 24 per cent and the industrial minerals for 22 per cent. Gold for many years was the chief single contributor to the output but it now holds fifth place, the order of output in 1958 being crude petroleum, uranium, nickel, copper and gold.

"Mineral production has long been a principal mainstay of the Canadian economy and each year the industry's importance is enhanced by the increasing knowledge being gained of the country's mineral potential, coupled with the energetic development of this potential by the companies concerned.

"Through this development Canada can lay claim to some outstanding accomplishments. Its iron ore production, which was less than 342,000 tons a year just prior to the war, now shows promise of reaching 100,000,000 tons annually in the not-distant future, the



By 1960 the Thompson, Manitoba, plant of International Nickel Company of Canada, Ltd., will begin operation and will have a total annual capacity of 75 million pounds. The plant will be surrounded by a modern community of 8,000 persons. In the foreground is the steel work for the smelter. Between it and the 500-foot stack are foundations for furnaces and converters. Immediately beyond the smelter is the compressor building, and then the mill.

ties in Canada can be illustrated by the case of Southern Canada Power. This company, a combination of Canadian ingenuity and natural resources, serves over 6,000 square miles of the southeastern section of Quebec Province. Shortly before the outbreak of World War I, a number of small utility companies combined to form Southern Canada Power Company Limited. Their total number of customers was 2,260.

The Mineral Supply

Among the many development opportunities open in Canada, the great store of mineral resources here deserves careful consideration by those whose manufacturing operations are directly or indirectly related to minerals.

In presenting the outlook for continuing growth of the minerals industry, Paul Comtois of Ottawa, minister

output in 1957, the record year, being 22.3 million tons. Its crude oil output, which was only 7.5 million barrels in 1946, reached a record total of 181.8 million barrels in 1957 and the industry is now capable of producing in the neighborhood of 365 million barrels a year.

Uranium Deposits

"Canada in 1958 became the leading producer of uranium. In that year also it reported its first production of potash, the output being from deposits in Saskatchewan which are among the largest and richest in the world. Its production of sulphur has been increasing so rapidly that, in balance, the output is now in excess of domestic consumption, whereas less than a decade ago it was considerably short of the consumption equivalent.

"It is these and numerous other accomplishments that provide the basis for much of the confidence that Canadians have in the outlook for their mineral industry. In the meantime, however, low base metal prices and other factors are tending to becloud the immediate outlook to some extent. The price of copper, which had been rising following a long decline, is again weakening and the prices of lead and zinc have shown little improvement for months. This unfavorable price picture, coupled with the United States' import duties on these metals, has made it necessary for Canadian producers to hold their outputs to levels well below the capacities of their plants. It has also caused some curtailment in exploratory work.

"Although Canada has been forging ahead in its production of uranium the outlook for the industry beyond 1962 when most of the present purchase contracts expire still remains uncertain. Most of the output is sold to the United States and in fact the industry in Canada was developed mainly to meet the needs of the United States Atomic Energy Commission. Uranium will doubtless find many important peacetime applications in industry in the years ahead but a difficult period of transition seems bound to develop.

"The outlook for Canada's crude oil industry has improved following the recent action of the United States Government in lifting the restrictions on oil entering that country from Canada. No marked improvement can be expected, however, until the demand has increased well above present levels.

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Also, low-cost shipments by tanker from the Middle East and other sources have made the markets highly competitive. Canada's output of crude petroleum is now at a rate of 565,000 barrels a day. Proven reserves at the end of 1958 were 3.65 billion barrels.

"Competition from Russia in the European markets continues as an unfavorable factor in the outlook for asbestos and has resulted in some curtailment of operations in portions of the industry. Sales for the first four months, however, at 282,800 short tons, were about 12 per cent higher than the corresponding period of 1958. Production of gypsum, clay products, lime, and salt in the four months ended April 1959 was considerably higher than in the corresponding period of 1958. Actually, the industrial minerals industry in the main has been considerably more active to date in 1959 than have most other branches of the mineral industry.

More Competition

"The industry has undergone a truly remarkable expansion since the war, with particular reference to asbestos, cement and sulphur. And, as noted above, potash production is showing promise of developing into a major industry.

"Summing up, then, it can be stated that the outlook for Canada's mineral industry has been improving during most of 1959 to date and that, in the main, this improvement seems likely to continue throughout the year. Still, there is an awareness in the industry that the supply of a number of the products of the mines will remain well in excess of the demand for some time to come and that competition in world markets is showing little indication of decreasing and is more likely to increase.

"These factors are of importance to an industry whose welfare is largely dependent upon the sale of its products abroad, but they are not likely to cause more than a moderate slowing down of the headway the industry has been making since the war. Great as it has been, this headway seems but a forerunner of what can be expected in the years ahead.

"This is underlined by the high success that has attended the search for and exploration of mineral deposits during the past twenty years, coupled with the fact that most of the country's northern mainland and its Arctic islands have so far received

relatively little prospecting attention. The indications are that for many years to come the exploration of Canada's mineral estate will prove even more richly rewarding than it has in the past."

The Automobile Industry

The production and sales of automobiles serve always as a good business barometer, and the growth of the automobile business provides opportunities for development of additional satellite industries.

Of interest, then, is the fact that all current signs point to a banner year for automobile sales in Canada.

Here's what E. H. Walker of Oshawa, Ontario, president of General Motors of Canada, Ltd., has to say about the general outlook for the auto business:

"Preliminary reports at June 1 indicated that industry sales might run at about 15.0 per cent over the first five months of 1958. In January of this year we estimated that Canadians might buy 475,000 vehicles during the calendar year of 1959. The estimate was based on possible sales of 400,000 passenger cars and 75,000 trucks. In view of the trend now established for the first five months of this year, it appears that the earlier estimate could be raised to 495,000 vehicles in 1959—415,000 passenger cars and 80,000 trucks. Such an estimate comes close to the all-time Canadian sales high of 499,000 units sold in 1956.

"During the same period of 1959, vehicle production in Canadian plants increased by 11.7 per cent over the corresponding five months of 1958—198,398 units against 177,600 units. Although passenger car production in May was 9.2 per cent lower than in May 1958, production for the first five months of this year was still 8.5 per cent higher than last year. Truck production continued to outstrip 1958 with an increase of 40.1 per cent in May and a cumulative five months' increase of 30.9 per cent over the corresponding period of 1958.

"Sales of the smaller European passenger cars in Canada continued strong during the first five months of the year and accounted for about 22 per cent of the market. An interesting trend within this segment of the market has been considerable gain in market share for cars imported by Canadian manufacturers from associated plants in the United Kingdom.

"This increase in market share has been at the expense of the independent manufacturers in Britain and other European countries. Among the several explanations offered for this trend are the North American-type styling of these cars, the nation-wide parts and service facilities offered by those Canadian manufacturers who import them and the greater availability of these cars as compared with last year's shortage.

"Canada's automotive industry has

... the Canadian Fishing Industry

"Canada's sea fisheries yield an annual catch of close to two billion pounds with a landed value of about one hundred million dollars and a marketed value in excess of two hundred million dollars. In terms of volume about two-thirds of the catch comes from the Atlantic and one-third from the Pacific. The northern waters do not support fish stocks in commercial quantities. In terms of value, the catch is about equally divided between the two coasts.

"Total commercial landings include a wide variety of species but the major fish processing industries are based on only a few. In 1958 salmon, herring and halibut yielded ninety-five per cent of the value of all Pacific landings; cod and other groundfish, together with lobsters, supplied eighty-seven per cent of catch value in Newfoundland, seventy-seven per cent in the four other provinces on the Atlantic.

"There are also important freshwater fisheries, developed mainly on the Great Lakes, the Manitoba Lakes and Great Slave Lake. Valuable among inland catches are pickerel, whitefish and lake trout.

"All segments of the Canadian fisheries

are based on exports markets, which absorb seventy per cent of the entire output. Total value of exported fishery products in 1958 was \$155,000,000. Canned salmon, fresh and frozen salmon and halibut, and herring meal and oil from the Pacific coast made up thirty per cent of this total. Frozen and cured Atlantic groundfish, together with Atlantic lobsters, live, frozen or canned, constituted forty-four per cent. Pickerel, whitefish and trout from the freshwater fisheries were shipped whole, dressed or filleted to add eight per cent. The remaining eighteen per cent of exports was extremely various."

In conclusion it may be noted that the primary industry continues to advance in the direction of more efficient catching equipment, in construction of both improved versions of traditional vessels and a growing number of multi-purpose vessels. Construction of processing facilities in areas where resources have hitherto been under-exploited has added a further stimulus to vessel building.

—J. Angus MacLean
Minister of Fisheries
Ottawa

CANADA

been operating at full work schedules—except for brief periods during labour disputes at a few supplier plants—ever since the start of 1959 model production. Some plants have worked two full shifts during this period. It is likely that the shut-down for retooling preparatory to the start of 1960 model production will, for the most part, be a short one.

"The industry gives strong support to the Canadian economy. It uses 10 per cent of the nation's steel output, 65 per cent of the rubber and 50 per cent of the glass. It spends annually in Canada for goods, services, wages and taxes an estimated \$1,200,000,000. It gives direct employment to more than 33,000 Canadians who this year will likely build close to 400,000 vehicles.

"It provides close to full-time employment for another 100,000 Canadians in its dealerships and in the plants of supplier of auto parts, rubber and petroleum. By adding in the various service industries, highway builders and others, it may be said that the industry, to a greater or lesser degree, contributes to the pay envelopes of one out of every seven Canadians.

"There is every reason to believe that Canada's vehicle population will continue its steady climb indefinitely. A conservative estimate would place the number of vehicles in Canada by January 1, 1960 at 4,900,000—3,800,000 passenger cars and 1,100,000 commercial vehicles—for a probable increase of almost six per cent over the previous year. At that time, there will be a motor vehicle in Canada for every 3.6 persons and a passenger car for every 4.6.

"The rate of development of Canada's automobile industry beyond early 1960 will be governed to a great extent by the growth of the economy itself. Another factor may well be the degree of acceptance by Canadian motorists of the new, lighter models which are to be built in Canada as an extension of traditional car lines.

"General Motors of Canada will introduce the Corvair at the start of the 1960 model year. Ford and Chrysler in Canada have indicated their intention of bringing out new smaller cars during the 1960 model year. If optimistic market forecasts, are borne out, these cars, by displacing a proportion of European imports, will provide more work in Canadian auto plants

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At left is famous Chateau Frontenac, with a partial view of Lower Town, as seen from Citadel Hill in Quebec City. A stronghold of old European atmosphere, the city is the capital of the Province of Quebec and the seat of the Roman Catholic Primate of Canada.

Canadian Gov't Travel Bureau Photo

and, in turn, throughout the supplier try.”
and service industries.

“At the moment the Canadian economy follows a steadily rising curve powered principally by consumer spending and additions to business inventories. At the same time, the construction industry, a good customer for trucks, looks forward to the second best year in its history. An improvement in the export picture and an increase in new plants and equipment would add additional momentum to the upward trend. There is now good reason to hope that continued expansion of the U. S. economy will have a favorable impact on Canadian exports and capital investment by the fourth quarter of 1959.

“The continuance of a favorable economic climate, the accelerated highway building program in many parts of Canada and the continued exodus to the suburbs lead to the expectation that vehicle registration and travel will increase at a rapid rate, particularly in the larger market areas.

“Such a prospect promises tremendous advancement over the long term for Canada’s automotive indus-

Varied Farm Products

Agriculture constitutes an important part of the Canadian economy, both for internal consumption and for export. It also provides possibilities for the development of additional plants to process the various farm products, and to utilize agricultural by-products.

According to Douglas S. Harkness of Ottawa, Minister of Agriculture, Canadian agriculture consists primarily of the production of wheat, meat and dairy products, oats for feed, barley for feed and malt, forage, poultry and eggs, apples and other fruits and vegetables, vegetable oil plants, and special cash crops such as tobacco, honey and maple products, sugar beets and seeds.

Discussing the growth of Canada’s agriculture, Mr. Harkness continues:

“Wheat is the main crop, averaging at least 500 million bushels in good years and representing a major factor in overseas trade. The United Kingdom is our biggest customer, taking 100 million bushels, but the product is popular on other markets for its high

protein content and fine breadmaking qualities. The western grain grower is seeding more than 20 million acres to hard spring wheat. He has the land, climate, equipment and experience for it; the seed varieties which suit the conditions; transportation systems geared to rapid and efficient handling of the crop; and a Wheat Board to do his selling.

“The grain grower has reduced his wheat acreage by several million acres in the last decade, turning to more feed grains, forage crops and pasture on which he is carrying an alternative crop—meat. This trend to diversification is continuing.

“We have been told that consumers, especially on the North American continent, are relying less in their diet on cereals and more on meat and fruit and vegetables. This trend should not substantially influence our wheat growers who must provide a safe margin of supply against possible crop failures for traditional export markets and a home population that is steadily increasing.

“The government last year made a special payment of \$1 per acre, up to

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U.S. businessmen are invited to take advantage of the practical inducements, and favorable business climate, that have been created by the Manitoba Government in order to bring new industry into the Province.

How has the Government arranged to assist U.S. firms? The Manitoba Development Fund was formed to provide financial assistance to manufacturing industries who wish to establish operations in the province.

Who is eligible for loans? Applications will be welcomed from firms in the United States and other countries, and loans will be considered on the basis of their contribution to the growth of Manitoba.

Why is the Fund of special interest to small and medium-sized companies? Many fast growing companies find it difficult to finance expansion out of retained earnings, raise funds from private investors, or make use of mortgage channels available to large firms. The Fund provides a number of ways by which small business firms can obtain their medium and long term capital needs.

How does the Fund supplement private lenders? The Fund makes loans when private lenders cannot. An otherwise acceptable project may require a loan for a longer term than a chartered bank can arrange. Some enterprises need financing worked out to special circumstances which complicate the use of normal mortgage channels.

On what terms will the Fund arrange financial assistance? Usually on a medium or long term basis. Average maximum maturity of a MDF loan will be between 3 - 10 years, but may be negotiated up to a 20 year period.

What other financial assistance is available in Manitoba? Community Development Corporations are set up throughout the province to help new industry establish plants or branch operations.

How can you get more details easily? Further information about the Fund is available in booklet form, on request.

MANITOBA DEVELOPMENT FUND

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Alberta Government Photo

Logging camps and saw mills are a familiar scene in the Province of Alberta's forested lands of the foothills region and northern areas. Forestry production for the first three months of 1959 showed a substantial 10 per cent increase in value over the corresponding period of 1958.

\$200 per farm, to western grain growers, with the double intention of compensating to some extent for the poorer returns from the 1957 and 1958 harvests, and to assist particularly the small farmers. As large special payments are not considered to be in the best long-range interests of the western grain producer, a program that will cope with the problem of extreme variability of income in that area is being sought.

"The cash income from sale of agricultural products was higher in 1958 than in recent years, the most substantial increase being in returns from beef; of 2.4 million cattle sold through commercial channels, the equivalent of 770,000 head was exported to the United States, including heavy trade in feeder cattle.

"There is evidence that cattle numbers in the United States and Canada are building up to a peak, but this trend is not likely to reach excessive surplus proportions in Canada because of pasture limitations. This is a factor that cannot be changed rapidly and is likely to keep the Canadian herd within the demands of the North American market, augmented as its human population annually is by some 3½ million. There may well be a drop in prices in a year or two, but the prospects nevertheless continue to look favorable for beef cattle.

"Dairy products provided cash income of \$490 millions in 1958 from a record output of 18 billion pounds of milk. Since this came from a herd of some 3,000,000 cows, tending to decrease in numbers but increase in yield, the product is not expected to exceed potential domestic disappearance. Price supports and close co-operation between producers, processors and distributors will be factors in maintaining this equilibrium while the price of Canadian dairy products remain non-competitive in most export markets.

"Country-wide livestock health and voluntary breeding programs, assisted by greater use of artificial insemination, are culling inferior stock from both meat and dairy herds and are promoting the development of animals that will meet the most rigorous requirements of importing countries.

"The income from hogs rose to \$312 millions in 1958, a substantial jump dictated by increased hog marketings and the consumer's desire for an alternative to high-priced beef. The United States proved a good market for Canadian pork and efforts are being made also to regain a footing in the United Kingdom which used to take a great deal of Canadian pork products.

"In hogs, and also in poultry—another livestock line which has soared in production in the last two years—

the sudden domestic demand led to "factory" output through the vertical integration of the producer-feed-processor interests, threatening the participation in the market of the small operator and leading to over-supply. Assistance is being given to both industries at the producer level, consistent with government policies of aiding the farmer to obtain a fair return for his effort.

"Shortening of the links between the retailer and the producer through contract farming in its various forms, has opened new lines of credit and safer marketing to farmers in livestock and special crops. In return the producer had to conform to requirements in buildings, feed and management designed to increase yield.

"The efficiency of this type of operation has emphasized the plight of the small farmer who could not meet such competition for a variety of reasons—insufficient land, lack of credit to acquire suitable buildings or equipment, and inability generally to adopt the modern methods that successful farming calls for today. Government has expressed its interest by bringing in a broad co-ordinated program of help to such people through a comprehensive long-term mortgage credit plan which is being studied along with land use and conservation.

"Orchardists on both coasts and in the central provinces continue to find export outlets despite competition. Apples are the main orchard crop and producer marketing boards and co-operatives the main methods of selling. "Experiments in handling, storing and shipping have been successful in reducing costs while the quality has remained high.

"Many growers are making a successful career in seeds for certification. In 1958 some 7,000 registered seed growers put 814,000 acres into crops. There were 24 new varieties of seed licensed for sale, including hybrid corn, potatoes, winter rye, spring wheat, sunflower, soybean, red canary grass, streambank wheat grass, bent grass, crested wheat grass, alfalfa and creeping red fescue.

"Potatoes for seed and table use are a main source of income for Maritime farmers while sugar beets and tobacco are well-established crops in the Central Provinces and sugar beets in irrigated areas in the prairies.

"The gradual transfer of families from the rural to the urban areas continues without undue stress on the na-

tional structure. This results partly from the use of well over 500,000 tractors on Canada's 575,000 farms, mechanization enabling one producer to feed 21 fellow-countrymen besides providing foodstuffs for export.

"While the trend is toward bigger farms, it also points to more intensive use of the land through programs for soil and water conservation in settled areas. Marshlands are being reclaimed for pasture and hay in the maritimes and Manitoba; well-prepared community pastures in Saskatchewan and Manitoba are being expanded as the demand for usage increases.

"At the same time the government's policy of financing stock watering dug-outs and reservoirs in the prairies is furnishing some guarantee against drouth forcing a liquidation of livestock. The biggest project now under way is the South Saskatchewan River Dam which will have the capacity to irrigate 500,000 acres in the drylands in central Saskatchewan.

"The export of agricultural products in 1957 brought in \$909 million, about one-fifth the value of all Canadian exports. More than 60 per cent of agricultural earnings—\$554 millions—was

derived from grain and grain products.

"Under the Agricultural Stabilization Act the government operates a revolving fund of \$250 million to provide stability of price for farm-produced food and fibre but the flexibility of the operation enables adjustments to be made to prevent surpluses becoming unwieldy. Supports for hogs and eggs are now being changed to deficiency payments to be paid directly to the producer, while notice of reduced support for milk powder has been given. An attempt is made to strike a medium between minimum stability income and incentive to over-produce."

Research activities, important to all segments of industry, are getting increasing attention in Canada.

How these activities are developing is told here in a special report from M. W. Thistle, chief of the public relations office of Canada's National Research Council. He says:

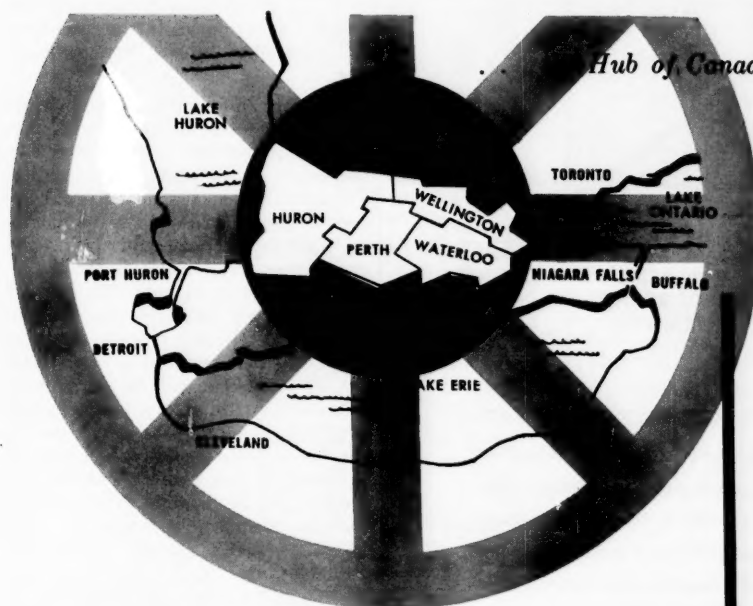
"The pattern of scientific research, and how it is distributed among universities, industry, and government, depends on such factors as population, resources, markets. These in turn depend on historical and geographical factors

and, to some extent, on what the neighbours are like. So the current pattern of research in Canada is a bit different from that in other countries. A few words may be said here about the three main focal points—the universities, industry, government—with a counterpoint of comment on how Canada got that way.

"In Canada, as in all countries, the universities continue to be the basic factor in research, because they supply the scientists. Our universities have had to struggle with inadequate support, and their present status in science is far better than Canadians had any right to expect. Thoroughly respectable scientific work is going on. Now, with encouraging signs of far more substantial support, we can expect a further improvement.

"Before the last war, secondary manufacturing made up about 15 per cent of the net output of the economy and employed about the same percentage of the civilian labor force. Since the war, these proportions have risen to about 28 per cent of total net output and to 25 per cent of the civilian labor force.

"Industrialization in Canada has been running along somewhat be-



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Ample water, hydro power and natural gas supplies, unexcelled communications and a stable labour force make "Opportunity Land" a highly desirable location for industry.

For full details, write for brochure "Opportunity Land" to Mr. E. W. Goebel, General Manager

MID-WESTERN ONTARIO DEVELOPMENT ASSOCIATION

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A NON-PROFIT ENTERPRISE

hind the U. S. A. As one result, our industrial research is still in its infancy. We are strung out in a long thin line next to a much larger and more highly industrialized neighbour, and we are afflicted with relatively small markets and the competition of industrial giants.

"However, the picture is changing. With the growing importance of secondary manufacturing in our economy, research performed by industry in Canada has been on the increase.

"Before the war Canadian secondary industries spent less than \$5 million a

year for scientific research. In 1957 they spent about \$100 million, which represents an increase of 20 per cent over the previous year. About 84 per cent of this expenditure was for research in company laboratories in Canada, and only 13 per cent for work done outside Canada. However, industry in Canada still spends only a fraction of the amount for research which is invested by industry in the United States or Britain, compared on the basis either of gross national product or population.

"A significant fact about Canadian

industrial research is that about 72 per cent of it is conducted by a relatively few large companies. This top-heavy pattern differs little from what is found in other industrialized countries. Not only do larger companies conduct more research; they are also more alert to the work of government laboratories and to the services provided by the provincial and federal governments. One explanation, of course, is that changes in products or techniques which are suggested by research involve capital outlay which the larger firms can better afford.

"Many of our large firms owe their expansion to the successful use of scientific techniques. It seems that interest in research and the will to make use of it are qualities of management, usually of the head of the firm himself, and this is true for companies of all sizes.

"The most encouraging feature is the strong trend in the last ten years towards some degree of Canadian self-sufficiency in research even in companies controlled from abroad. This trend has been particularly marked in the chemical industry, and conspicuously absent in certain other major industries. Some of the older laboratories show substantial growth, and more and more Canadian companies are starting research laboratories for the first time. The over-all picture is very encouraging.

"If all private industries could afford to operate research laboratories they would naturally take care of their own immediate *ad hoc* problems, since these activities show an immediate profit. All very large industries and many moderate sized industries should and usually do operate such laboratories, but in Canada and most other countries over 95 per cent of all industries are so small that it is entirely impracticable for them to operate their own research laboratories. This problem can be solved only by some form of public support. Indeed it can be argued that the larger, and in some ways, more expensive laboratories that carry on long-term applied research—which has applications to industry as a whole—should be sponsored by public bodies. In Canada this is the case.

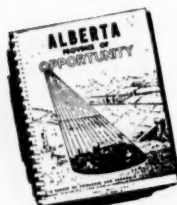
"Government departments that administer the development of natural resources have the longest history of research. Other federal organizations, which do not come under any one department but report to a committee of nine members of the Privy Council, are Atomic Energy of Canada Limited and

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ECONOMIC SURVEY GIVES THE FACTS

First comprehensive survey of resources and economic possibilities in Alberta, compiled by J. T. Donald & Co. Ltd. and sponsored by Calgary Power. Industrial, commercial and governmental enquirers seeking specific information on Alberta are invited to write Director of Industrial Development, Calgary Power Ltd., Box 190, Calgary, Alta.

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CANADA



CHECK THESE FIGURES

Alberta's present population	1,233,000
Alberta's retail trade	\$1,247,703,000
Alberta's wholesale trade	\$1,700,000,000

The Heart of Industrial Expansion

In 1958 ONE HUNDRED AND NINE new manufacturing plants established themselves in Alberta or expanded their operations.

Of these 109 manufacturing plants CAPITALIZATION ranged from \$12,000 for the expansion of a shoe manufacturing company to \$17,300,000 for oil refinery expansion.

APRIL 1959 . . . Farm cash income for the first three months of the year up 3.8% of the record 1958 total. Bank clearing for the same period up 10%. Wholesale trade increases 7%. Sales of new motor vehicles increase by 28%.

MAY 1959 . . . Site selected for new \$6,000,000 Tire Plant.

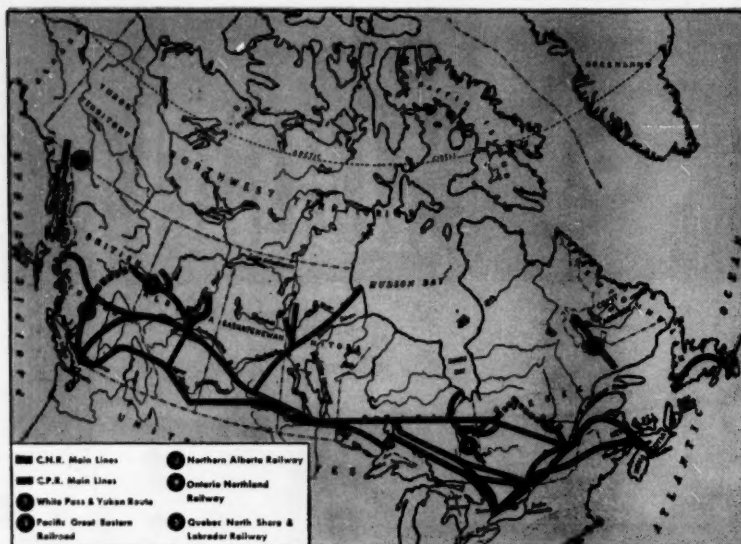
JUNE 1959 . . . Canada's First Big Inch (up to 40") pipe manufacturing plant to be built at cost of \$10,000,000.

FACTS
Write today for an industrial location map showing Alberta's natural resources and production centres.
This MAP will give you a better idea why you should consider ALBERTA for your new or branch plant.

For Confidential enquiries or further information write Richard Martland, Director, Industrial Development Branch, Legislative Buildings, Dept. SOM, Edmonton.

The Government of Alberta





Canada is spanned by two great transcontinental railroad systems, and these, with other lines, tap virtually all important areas. Canada also is well supplied with highways and roads, about \$3.2 billion having been spent on road-building since the end of the War. Scheduled air service connects all major cities of Canada with other parts of the world.

the National Research Council.

"Over the years in Canada a network of Research Councils has been built up, starting with the National Research Council in 1917 and now extending to more than half the provinces. All these have followed the tradition of having much more freedom of action than does a normal government department: for example, the NRC is run by an Advisory Council of non-Government scientists. They are very complex organizations, intimately connected simultaneously with government, with industry, and with universities.

"Much of the work done in the NRC laboratories is of a type that would be too expensive to be undertaken by any one university or indeed handled by any one industry. A good example of this is the development of Atomic Energy of Canada Limited which, for the first ten years of its existence, was supported by the National Research Council, before it was set up as a separate Crown company. The use of atomic energy is only now beginning to be applied by industry. A good deal of work is also devoted to problems of national interest, in which the cooperation of industries, federal and provincial agencies and other bodies, must be sought.

"Although the greater proportion of the work in the laboratories is of an applied nature, it is vital to a research organization that a considerable amount of purely fundamental work should be

undertaken. This is done in all divisions. Many of the Council's pure scientists are authorities in their specialized areas of research. It is essential for the welfare of Canadian science as a whole that the strong position of the Council's laboratories be maintained to provide leadership in scientific fields and to provide a flow of top-ranking scientists from the laboratories to the universities and to industry.

"The long-term problem facing the Council today is fundamentally the same as it was forty-three years ago—to assist in building up in Canada a first-rate body of scientists and engineers adequate for the expanding development of the country. No better way of doing this has been found than a balanced program of grants to members of university staffs for equipment and supplies, and scholarships to post-graduate research students. The Council's current program for this purpose is in the neighbourhood of \$6 million and a further \$8.2 million will be spent next year.

Excellent Transportation

A country of magnificent distances, Canada is spanned from the Atlantic to the Pacific by two great transcontinental railroad systems, and fingers from these systems reach out north and south to tap virtually all important areas.

The two primary railroads are the

Canadian National Railway System, a government-owned operation, and the Canadian Pacific Railway Company, a joint stock corporation.

Both systems, in addition to their wide-flung railway and express operations and their extensive maintenance services, conduct other transport facilities. The latter include fleets of inland and coastal vessels and ferries, ocean-going steamships, nation-wide telegraph services providing communications between all principal points of Canada with connections to all parts of the world, highway transport services, year around and resort hotels. Also, extensive passenger and freight air services throughout Canada, across the north Atlantic to the United Kingdom, to Portugal and Spain, to the Caribbean, to points in the United States, to Mexico and South America, to the Antipodes and the Orient, and across the Arctic from Vancouver to Amsterdam.

Both railway companies continue to invest in new plant facilities and to enlarge and modernize existing equipment and services. Diesel locomotives are quickly replacing steam locomotives, new freight cars of all types are being added to the rolling stock, many of them devised for special-purpose hauling, and self-propelled rail diesel cars are cutting down costs on short runs. Further, the railways are continuing to assist in Canada's development by laying track into underdeveloped regions.

For car and truck transportation, Canada is well supplied with roads and highways in all its populated areas. Altogether, about \$3.2 billion has been spent on road building in Canada since the end of World War II.

A special program being pushed is the 4,469-mile Trans-Canada Highway, a \$500 million project being built by the provincial governments with federal financial assistance. The objective is a paved highway, coast-to-coast, by the end of 1960.

In air transportation, the nucleus of Canada's freight and passenger air service is provided by Trans-Canada Air Lines and the Canadian Pacific Air Lines. These two carry a great portion of the air traffic originating in Canada, whether destined for other Canadian points or for Europe, the United States, or other areas. Various other airlines also operate in and out of Canada, and there is a great number of non-scheduled lines providing special services.

Recently there has been a huge increase in the gas pipeline system of Can-

ada, and by the end of 1958 most urban centers from Vancouver to Montreal had natural gas being delivered from Alberta and northeastern British Columbia fields. The two main transmission components of the system are the pipelines of Trans-Canada Pipe Lines, Ltd., and Westcoast Transmission Company, Ltd.

There is also continuous expansion of Canada's oil pipeline system, and Interprovincial Pipe Line Company's line, extending for 1,931 miles, is the world's longest crude oil pipeline. Crude oil is received from the major fields in Alberta and others in Saskatchewan and Manitoba. As it travels eastward, deliveries are made to refineries in Canada and the United States.

The St. Lawrence Seaway, officially opened in June with ceremonies in which Her Majesty Queen Elizabeth and President Eisenhower officiated, is expected to enhance considerably the trade activities of Canada as well as the United States.

The Seaway is a system of locks and channels that overcomes a series of falls and rapids in the St. Lawrence River and provides a waterway with a minimum depth of 27 feet. A total of 7 new locks (two of which were built by the United States) located between Montreal and Lake Ontario, the most easterly of the five Great Lakes, replace 22 on an outmoded system of locks and canals which provided a governing depth of but 14 feet.

In broader terms, following completion of work by the United States on the Great Lakes connecting channels, the Seaway will become a 2,300 mile system of waterways extending from the Atlantic Ocean to the head of the Great Lakes. The St. Lawrence River is the main artery and the waters of Lake Superior seeking sea level drop 602 feet through the other lakes and the river's course on the way from mid-continent to the sea. A minimum depth of 27 feet will extend throughout enabling ships of 25 foot draft to carry their cargoes to and from the very heart of industrial North America.

Canada's harbors also are vastly important in the overall transportation picture, as they provide facilities for shipping to and from all parts of the world on both the Pacific and Atlantic coasts.

The harbor of Halifax, situated on the Atlantic Coast of Nova Scotia, is approached directly from the ocean by a channel with a minimum depth of 50 feet at low tide. It is open to navigation

the year round and is served by both the Canadian National and Canadian Pacific Railways.

The National Harbours Board operates wharves and piers having about 19,000 linear feet of berthing, which provide 32 deep water berths. There are 20 transit sheds with an aggregate floor area of about 1,290,000 square feet including frost-proof areas.

In addition, the Board operates a 4-152,500-bushel train elevator with a maximum loading capacity of 90,000 bushels per hour, and a marine tower with an unloading capacity of 15,000 bushels per hour; also, a cold storage terminal warehouse with about 1,719,000 cubic feet of storage space completely fitted with sharp-freezing, storing, and packing equipment, and ample rail connections.

Chicoutimi harbor is situated on the Saguenay River about 75 miles from its mouth. The Saguenay flows into the St. Lawrence River at a point 120 miles below Quebec.

The facilities operated by the National Harbours Board include 2,750 linear

feet of wharf, providing 5 berths for ships of 26-foot draft and 1 berth for coastal vessels, a concrete transit shed 400 feet by 60 feet, a frame shed 150 feet by 40 feet, and about 8,500 feet of standard gauge railway tracks connecting with the Canadian National Railways.

Situated at the mouth of the Saint John River on the north shore of the Bay of Fundy, the harbor of Saint John is open to navigation the year round and it is served by both the Canadian Pacific and the Canadian National Railways. It is accessible from the sea by a main channel 600 feet wide with a minimum depth of 30 feet at extreme low tide.

Wharves and piers with about 14,500 linear feet of berthing, providing 27 deepsea berths and 6 berths for coastal shipping are operated by the National Harbours Board. There are 16 transit sheds, including frost-proof areas in 3 sheds, with an aggregate floor space of about 991,000 square feet, all with rail connections.

The Board's grain elevator, on the



west side of the harbor, has a storage capacity of 1,576,800 bushels, and is connected to 9 of the berths by over 2 miles of conveyor galleries with a shipping capacity of 60,000 bushels per hour. Two locomotive cranes and one 65-ton floating crane are available.

The harbor of Quebec is situated on the St. Lawrence River about 160 miles below Montreal. It is open to ocean navigation for about 8 months in the year and coastal navigation the year 'round.

Included in the facilities operated by the National Harbours Board are 20,-

200 linear feet of berthing providing 27 deepsea berths and 14 berths for coastal shipping. There are 9 transit sheds with a total floor area of about 693,000 square feet; 23 miles of standard gauge terminal railway, connected with both Canadian railways; a grain elevator with a capacity of 5,950,000 bushels and 2,000 linear feet of shipping galleries, with a loading capacity of 90,000 bushels per hour; 2 marine towers for unloading boats in operation and 2 under construction.

Also available is a modern cold stor-

age warehouse with a capacity of 500,000 cubic feet, and a fish-house with a capacity of 1,000,000 pounds; a floating crane of 75 tons capacity, and 3 locomotive cranes with a capacity up to 38 tons.

Three Rivers harbor is situated at the confluence of the St. Lawrence and St. Maurice Rivers, about 81 miles below Montreal. It is open to navigation for about 8 months each year, beginning early in April.

The National Harbour Board facilities include 8,600 linear feet of wharves which provide 18 deepsea berths, with a minimum water depth of 30 feet, and 2 berths for coastal or small vessels. There are 10 transit sheds with a total floor area of about 290,000 square feet.

Situated on the St. Lawrence River approximately 1,000 miles inland from the Atlantic coast, the harbor of Montreal is usually open to navigation from early April to about the middle of December. The ship channel, of which approximately 100 miles is dredged channel, provides a minimum depth of 35 feet. The harbor is served by both Canadian railways connected to the harbor front by 63 miles of terminal railway operated by the National Harbours Board.

The Board operates main piers, wharves and jetties providing 125 berths, totalling about 11 miles of berthing accommodations; 34 transit sheds, with an aggregate floor area of 2,700,000 square feet; also 4 grain elevators, with a total storage capacity of 16,762,000 bushels, and 4 miles of grain conveyor galleries; and a cold storage warehouse with a capacity of 2,909,210 cubic feet.

A 75-ton capacity floating crane and 6 locomotive cranes are available.

Churchill harbor is situated at the entrance of the Churchill River on the west side of Hudson Bay. It is open to ocean navigation from about the 26th of July to the middle of October.

Included among the facilities operated by the National Harbours Board are 2,055 linear feet of wharf providing 4 deepsea berths, with a depth of water alongside of 30 feet at low tide, and 1 berth for coastal shipping with a minimum depth of 15 feet at low tide; a steel transit shed 476 feet long by 173 feet wide; a grain elevator with storage capacity of 5,000,000 bushels, equipped with galleries and spouts allowing the loading of 3 ships at a time.

Also there are railway tracks along the wharf, a locomotive crane of 15 tons

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If you are seeking industrial expansion possibilities in the rich Pacific Northwest, Annacis Island may be your ideal solution. This unique industrial estate on British Columbia's Fraser estuary has been specially designed for companies wishing to launch or develop factory operations at minimum cost . . . and with certain substantial tax advantages.

Here you can build your own plant or, if you prefer, rent modern, custom-designed premises without using your capital. Special smaller factory units offer the perfect method of trying out a pilot plant at minimum financial risk. Skilled labor is abundant. Outstanding road, rail and sea communications assure rapid distribution of goods to North American and world markets.

Thirty-eight national and international companies - including some of industry's most famous names - have located plants on Annacis since 1956. May we send you the full story in our free brochure "Annacis"? A line from your secretary will bring it by return mail.

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CANADA

capacity, a floating crane of 10 tons capacity, and a marine slipway capable of handling boats up to 1,200 tons weight.

Situated in Burrard Inlet on the west coast of British Columbia, the harbor of Vancouver, with direct access to the Pacific Ocean through the Straits of Georgia and Juan de Fuca, is served by the Canadian National, Canadian Pacific, Pacific Great Eastern, and Great Northern Railways. The entrance channel to the harbor, which is open the year round, has a minimum depth of 39 feet.

The National Harbours Board has piers, wharves and jetties with about 9,500 linear feet of berthing, providing 17 deepsea berths and 3 berths for coastal shipping. There are also 6 transit sheds with a total floor area of about 576,000 square feet.

The Board's 4 grain elevators have a total storage capacity of 9,779,500 bushels, a combined loading capacity of about 200,000 bushels per hour and 1½ miles of conveyor galleries. Besides, there are storage tanks with a capacity of over 870,000 imperial gallons for the handling of fish and vegetable oils, open wharves, booming grounds and scow pools for the storage and shipment of timber.

Three special wharves are also provided for the fishing industry, one being complete with a shed, a small ice plant and freezing equipment for processing fish. A 40-ton fixed derrick is installed on Lapointe Pier.

Of particular interest to the grain industry are the facilities provided at the Prescott elevator which is situated on the St. Lawrence River about 118 miles upstream from Montreal and 50 miles downstream from Kingston.

The facilities operated by the National Harbours Board include a grain elevator with a storage capacity of 5,500,000 bushels with four traveling marine towers, each with a capacity of 35,000 bushels per hour, 5,400 linear feet of wharf and adequate railway trackage.

In addition there is the Port Colborne elevator situated at the southern or Lake Erie entrance of the Welland Ship Canal. The facilities operated by the National Harbours Board include 2,400 linear feet of wharf and a grain elevator with a storage capacity of 3,000,000 bushels with 4 marine legs having an unloading capacity of 18,000 bushels per hour each.

NEW CANADIAN OPPORTUNITIES

NEW BRUNSWICK, one of Canada's oldest provinces, is opening as one of the newest industrial frontiers.

Great base metals discoveries—undeveloped forest resources—assured electric power—point the way to industrial opportunities.

An expanding Atlantic Provinces' market, seaboard locations, available labour and building sites make New Brunswick a logical centre for Eastern Canada.

For Further Information Write To:

Department of Industry & Development

Fredericton, New Brunswick, Canada

HON. J. ROGER PICHETTE

J. A. PETERSON

Minister

Deputy Minister



New Brunswick

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Many Outstanding Advantages TO INDUSTRIALISTS

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- Excellent labour-management relations
- The financial and technical assistance of a Crown Company to launch new industry

The Government of Nova Scotia is providing valuable aid and inducements to manufacturers desiring to locate here. You may be sure your enquiry will receive prompt, careful and confidential attention.

DEPARTMENT OF TRADE & INDUSTRY

HALIFAX, NOVA SCOTIA, CANADA.

HON. E. A. MANSON
MINISTER

J. R. BIGELOW
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FACTS AND FIGURES

to substantiate
above statements

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TO:
K. C. BATH
Industrial Commissioner
19 Mississaga Street, West
Dept. A. G.
Orillia, Ontario
JUST PROVE THAT TO ME!

FROM:

CANADA



Ocean freighters unloading at Hamilton, Ontario's new \$2.75 million terminal warehouse following opening of navigation on the Great Lakes. Water transportation is a major asset to Canada not only via the newly opened St. Lawrence Seaway and the Great Lakes but also to and from harbours on both the Atlantic and Pacific coasts.

The Work Force

Employment in Canada fluctuates with the seasons, since much activity is curtailed during the winter months. The general pattern is that a low is reached in February and a high in August.

Figures supplied by the Dominion Bureau of Statistics and the Department of Labour showed that as of this past December there were 5,680,000 persons at work. The number without jobs and seeking work was estimated at 440,000 or 7.2 per cent of the labor force.

Average weekly earnings in manufacturing were \$67.48, with average hourly earnings of slightly over \$1.65.

To help workers, laws have been enacted to set minimum standards for hours of work, wages and many other conditions of employment. The right of workers to belong to labor unions of their own choosing is also protected by law, and a large proportion of the work force now belongs to unions.

A contributory plan of unemployment insurance and a nation-wide free employment service is in operation in Canada. All persons employed under a contract of service are insured unless specifically excepted. Employers and insured workers contribute equally, the contributions being based upon the wages or salaries earned. The Federal Government adds one-fifth of the total

employer-employee contributions and pays administrative costs.

You may see, then, from the points covered so far, that Canada's growth potential is nothing short of enormous.

Another point of interest is that while Canada is a foreign country, no passports are required of citizens from the United States. The only red tape involved is a baggage check and a few simple questions asked at the point of entry.

It is true, too, that there are more points of similarity between Canada and the U. S. than there are differences. And, even though you will find in eastern Canada—particularly in the province of Quebec—a lot of French-speaking people as well as radio and television stations broadcasting in French, virtually all the people both speak and understand English.

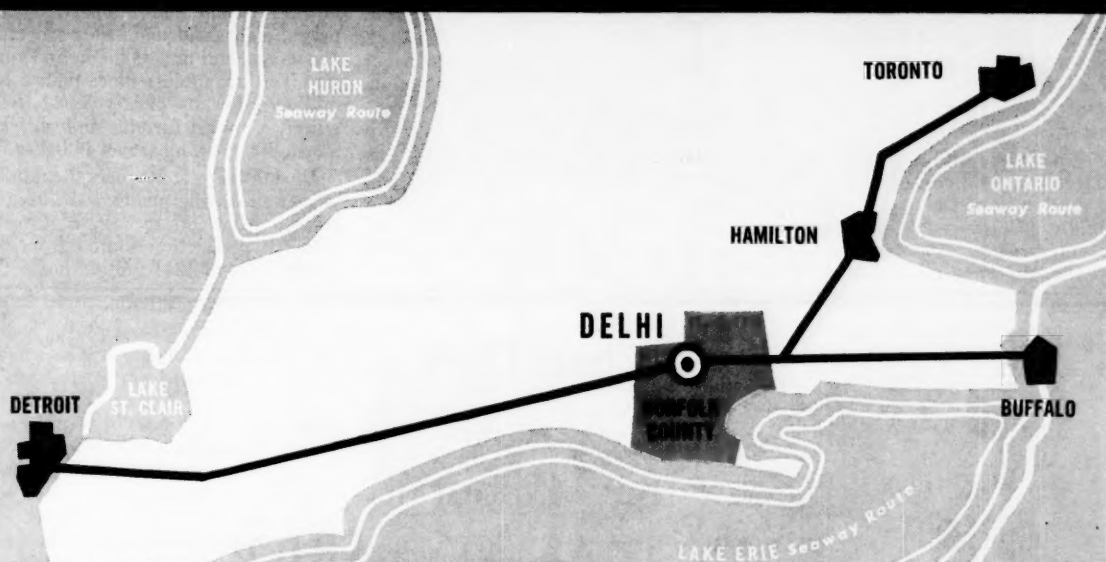
Good sources of aid for the site seeker are both the Canadian National Railways and the Canadian Pacific which maintain extensive industrial development services. With respect to tariff and tax questions, a good source at the national level is the Industrial Development Branch of the Department of Trade and Commerce in Ottawa. Sales tax information can be obtained from the particular province under consideration.

Fine School System

Canada's national literacy rate of

Delhi

A happy town for home and industry



- Ideally located, Delhi is the centre of a rich, fast growing, Southern Ontario market.
- Delhi is served by the Canadian National and the Wabash railways.
- First class highways connect Delhi with Toronto, Hamilton, Buffalo, London, Windsor, Detroit — all within a radius of less than 160 miles.
- Delhi has excellent modern education facilities, fire and police departments, churches, shopping areas and recreational centres
- Delhi's citizens are industrious and resourceful. Seventy-two per cent own their own homes.
- Choice industrial land serviced with an abundance of water and electric power supply is available.
- Please direct your enquiry to the Industrial Commission, Delhi, Ontario, Attention Mr. Raymond Castle.

*New brochure
on request*



Please send your new brochure which outlines all information concerning Delhi.

Name

Address

Prov.

CANADA

more than 97 per cent attests to the excellence of its public and private school systems.

The public school systems are under the supervision of the various provinces. A good assortment of first rate colleges and universities offers a wide variety of study at the undergraduate level, while the larger universities have excellent graduate schools and research facilities for more specialized work. Altogether, there are 32 institutions of higher learning granting degrees in Canada.

The Provinces

Located in the very center of Canada, the Province of Ontario is the wealthiest and largest in area and population of the predominantly English speaking provinces.

The greatest concentrations of population in Ontario are around the western end of Lake Ontario, in the vicinity of Windsor in the extreme southwest, and in the Ottawa area in the extreme northeast.

It is important, however, that the largely untapped and uninhabited area of northwestern Ontario is now being rapidly opened up through the efforts of enterprising promoters, geologists, metallurgists, engineers, foresters and

their associated mining, lumbering, pulp and paper, and hydro-electric power corporations. It is here that the province mines most of its gold, nickel, copper, silver, platinum, cobalt, iron and uranium.

Alexander Phillips, general manager of the Northwestern Ontario Development Association, observes in this connection: "Emergence of Northwestern Ontario as a substantial segment of the Canadian economy is an exciting and significant development of the nation's mid-twentieth century. Even more importantly, its future is pregnant with tremendous potentialities."

A NEW "NATURAL RESOURCE"

Conway Publications' first report on Canada's industrial opportunities was published in the summer of 1957. As a part of that investigation, an effort was made to identify all groups, firms and individuals offering location aid to the site-seeking executive—that is, professional developers.

The Research Department has, to date, identified and catalogued nearly 700 different development groups in Canada offering professional aid to site-seeking executives. This tremendous advance in development activity is not surprising in the light of progress reported in this year's Canadian Progress Edition.

A complete listing of Canadian developers will be published in the *Site Handbook* in October.

"Today," he continued, "the region's natural resources support and sustain an expanding structure of basic industry embracing 10 huge pulp and paper mills, plywood and lumbering enterprises, eight gold and two copper-zinc producers, and one of the nation's biggest iron ore mines; more than a half million kilowatts of developed hydro power, a robust farming industry and a steadily growing travel industry."

During the past 10 years the number of manufacturing plants in the area increased from 257 to 332, while gross value of production soared from \$94 million plus to \$241 million plus.

What Does MANAGEMENT Say About ST. THOMAS, ONTARIO?

"The helpful and continued cooperation of city officials, the Chamber of Commerce, the Industrial Board, Public Utilities, and our many suppliers is worthy of high commendation. We feel "at home" even though we have been in production only three weeks."

W. H. Martin, General Manager
CLEVITE LIMITED

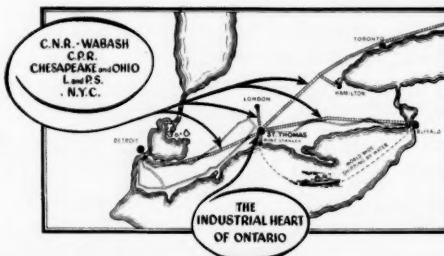
"We feel that at least a fair share of the credit for our success must be attributed to the excellent geographical location offered by this city. In addition the unexcelled transportation facilities and quality of labor available have been important factors."

J. M. MacKinnon, President
ST. THOMAS METAL SIGNS LIMITED

Copies of the above letters, plus others are available on request. For specific data on industrial opportunity in St. Thomas, you are invited to contact:

ST. THOMAS INDUSTRIAL DEVELOPMENT CORPORATION

CITY HALL, ST. THOMAS, ONTARIO
W. H. A. Sparling, General Manager



During the same period the area's population grew from less than 150,000 to more than 215,000.

Among U. S. companies operating in Northwestern Ontario is Inland Steel of Chicago. The latter's wholly owned subsidiary Caland Ore Company has, with Steep Rock Iron Mines, Ltd., spent more than \$170 million in the development of the great Steep Rock Range. Also, Anaconda Copper has underway development of a huge iron property north of Lake Nipigon.

Another important area is the Mid-western part of Ontario. Promoting development in this area is the Mid-Western Ontario Development Association, of which Elmer W. Goebel of Stratford is general manager.

With a population of more than 330,000, the area has more than 1,000 manufacturing industries of various sizes, producing in excess of \$550 million in gross value of manufactured goods. It also has over 16,000 occupied farms and in excess of 1,151,000 acres under crop.

According to Mr. Goebel, this area, which is in the center of the largest market area of both Canada and the U. S., has excellent industrial sites, a labor force of more than 120,000, and outstanding development potentialities.

Good examples of fast-growing towns in Ontario are Delhi and Orillia. Described as a "happy town," Delhi has a population of over 3,000, and more than 70 per cent of the residents are home owners.

In addition to extensive rail and highway transportation facilities, Delhi has plenty of water power and industrial land, along with a skilled labor supply. The Delhi Industrial Commission is actively promoting development of the community.

The 150-year-old community of Orillia today has industry producing everything from heavy mining machinery to doll carriages, boats to golf tees, and men's pants to furniture.

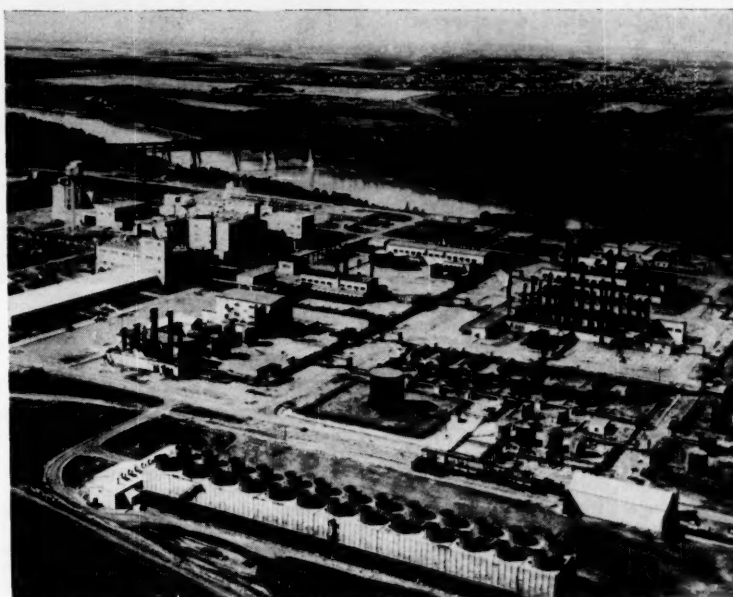
Orillia is 80 miles northeast of Toronto, on a four-lane highway, and has a population of more than 6,000. Looking ahead, Orillia has set up an Industrial Commission and has done extensive community planning for the future. This includes preparation of fully serviced and properly zoned industrial sites in attractive surroundings.

Described as "well balanced," Orillia has industry, commerce and tourism in the middle of a farming community.

Ottawa, the capital of Canada, is a government rather than an industrial



An interesting example of a planned industrial park in Canada is this one in the City of Guelph which is in mid-western Ontario. At extreme left is the plant of Imperial Tobacco, covering 435,000 square feet of floor space, while at the lower center of the picture is the transformer plant of Canadian General Electric. Immediately to the right of the latter is the Bucyrus Erie plant, and at upper right is Hammond Electric.



Alberta Government Photo

The plant at Edmonton of Canadian Chemical Company Limited is one of six major petrochemical firms operating in Alberta, with two or more in the planning stages. The province's petrochemical industry employs nearly 2,500 persons with a total annual payroll of \$11 million. Annual production is in excess of \$60 million.

center. However, it is also a center of research and development and the home of Canada's largest population of pure scientists.

Emphasis on this research background has made Ottawa increasingly attractive to certain types of industry. For example, Industrial Commissioner Robert Bullock of Ottawa reports that in April this year alone there were 11 purchases of land, locations of new buildings, or locations of firms from California, England, Chicago, Montreal and Toronto.

Ottawa, with a population of 250,000, also is making strong moves toward urban renewal and general improvement. In 1958, for instance, building permits approached the \$100 million mark, and in the spring of 1959 the boom continued in a big way with the housing program alone exceeding 1,200 units at a cost of more than \$15 million.

Altogether, says Mr. Bullock, "industrial development in the capital of Canada is making an international stir."

Toronto, capital of the province, with its harbour and converging railways, is synonymous with industrial diversification. The metropolitan area now has a population of 1,570,000, an increase of 50 per cent in the last decade. The city has a total of about 6,000 manufacturers, but only 176 employ more than 200 workers, making for good economic stability.

Other important industrial centers are Windsor, a center of the automobile industry, and Hamilton, with its primary iron and steel industry.

An example of a planned industrial district in Ontario is Slough Estates (Canada) Ltd. which is just 10 miles from Toronto. In addition to being on the four-lane Toronto-to-Montreal highway, it is served by ample rail lines and all utilities. There is plenty of land available for future expansion, and services have been planned to take care of future needs.

Another of the smaller cities enjoying excellent growth in Ontario is St. Thomas. With a population of 20,000, it is nine miles north of Lake Erie and midway on a direct line between Detroit-Windsor and Buffalo-Fort Erie.

Present industries in St. Thomas are diversified, including everything from iron, steel and bronze, to paper products, food products and construction machinery. A new industrial area, with all services, is being developed on the eastern limits of the city.

Quebec

The largest province in area and second in population and in the economic field, Quebec is a land of vivid contrasts and historic memories, preserving much of the atmosphere of Old France in a new world of vigorous industrial activity and change.

While Quebec's agriculture is now outranked by manufacturing and construction, it holds third place behind Ontario and Saskatchewan in farm income.

Two thirds of all income in the province is derived from manufactures that stem from the abundant resources of timber, hydroelectric power, nonferrous metals, pulp and paper, and smelting. Quebec also has an extensive production of textiles, leather and rubber goods, as well as 90 per cent of Canada's tobacco processing industry.

In addition to having maple sugar, sugar beets and many dairy cows, Quebec also has asbestos, copper, iron, silver, chrome, zinc and tungsten.

Overall, it is felt that Quebec's basis for current expansion and the potential of a remarkable industrial future are in its vast pulp and paper industry, its abundant low-cost hydroelectric power,

and its immense mineral resources.

And, the lure of immense mineral resources, in close association with the abundant forests and water power, all accessible to the St. Lawrence Seaway, ensures northern Quebec a prominent place in Canada's industrial future.

The City of Quebec, founded by Champlain in 1608, is a stronghold of old European atmosphere. It is the capital of the province, the seat of the Roman Catholic Primate of Canada, and the site of Laval University.

It ranks, however, as an important industrial center, with a far-reaching commercial hinterland, and this industrial activity is rapidly gaining in significance.

Montreal, Canada's largest city and chief port, literally symbolizes the industrial revolution that is sweeping through the province. Laced to the shore by many bridges, the Island of Montreal constitutes a major industrial, commercial and financial center, with extensive harbour facilities and unequalled transportation facilities of all kinds.

The city's diversified manufactures include such things as heavy industry, railway and other transport equipment,

MIDSUMMER NIGHT'S DREAM COME TRUE



Festival Theatre

Stratford, Ontario is a friendly, progressive city which possesses, among other things, an Elizabethan Festival.

In 1939 the city was still barely emerging from the Great Depression. The CNR Steam Locomotive Repair Shops accounted for most of the industrial economy, aided by a few smaller plants. Even through the citizens knew that more substantial employment was necessary, it was not until 1950 that things began to look up. A young, progressive mayor was elected and W. P. Gregory became Industrial Commissioner. With the beginnings of new prosperity on the horizon, a dream that had been laying dormant began to emerge. A

Shakespearean Festival for Stratford!

A committee took shape. Dr. Tyrone Guthrie, eminent British theatrical figure was retained for guidance. The citizens threw their enthusiasm behind it.

Also, industry began to notice the energetic little city and a few came to look around.

Industry did not come to Stratford because of Shakespeare—that is, not altogether. The two enterprises, industrial development and the Festival sort of grew up together.

Another interesting fact about the Festival is that it is now a Canadian project—not just a local affair. Thirteen of the twenty-five members of the Board of Governors are from outside Stratford.

Last year Princess Margaret attended a performance of "The Winter Tale" and this year the Queen visited the Festival.

Officials of Stratford modestly admit that "all other things being equal" they can offer something a little extra to a new industry.

So now, even though the old Steam Repair Shops have had to cut down from their former employment of 1200 to 500, the people of Stratford are not alarmed.

In the words of Tom Flood, Stratford's indefatigable Industrial Commissioner, Stratford is truly where "Industry and the Arts Combine."

the products of iron and steel, paper, wood, non-ferrous metals, petroleum, foods and beverages, electrical apparatus, clothing and textiles.

The Maritime Provinces

One of the most colorful regions of Canada in history and natural beauty is the area comprised of the three maritime provinces of Nova Scotia, New Brunswick and Prince Edward Island.

Latest available figures on the selling value of factory shipments from Nova Scotia showed \$427 million in 1957. The total value of mining was \$64 millions in 1958, while cash farm income last year amounted to \$44 million. The fishing industry brought in \$25 million in 1958, and new private and public investment amounted to \$284 million.

Of special interest to the site-seeker is Industrial Estates, Ltd., a Crown company set up to encourage the promotion, expansion, diversification and development of industrial activity in the province. It has offices in the Bank of Nova Scotia Building at Halifax. The Bank itself is one of the prime development assets of the province, and its staff stands ready to give full assistance to prospective industrialists.

New Brunswick recently has surged forward rapidly, as during the past two years more new enterprises were started than at any previous time. The value of manufactured production has risen from approximately \$60 million before World War II to in excess of \$300 million currently. The province itself is growing more important as a market, the population having increased from 555,000 in 1956 to 587,000 this year.

Wood and pulp and paper production are well in the fore in New Brunswick, followed by fish curing and packing, and the processing of agricultural products. However, the great base metal finds of recent years in the northern part of the province have added a potential not only for the metallurgical industry but also for chemicals.

J. Roger Pichette is New Brunswick Minister of Industry and Development.

Known as Canada's Garden Province, Prince Edward Island is a prime producer of high quality foodstuffs grown in the rich, red soil of the island or harvested from the waters of the surrounding Gulf of St. Lawrence. About 85 per cent of this "million-acre farm" is under cultivation.

In addition to various products of the soil, the island has an extensive output of cattle, sheep and hogs, as well as

poultry and dairy products.

The agricultural output has led to development of an extensive canning industry. For example, more than half of all the canned chicken in Canada is processed in Prince Edward Island canneries. The canning also includes many seafoods as well as vegetables.

The province's Department of Industry and Natural Resources says it extends a warm welcome to industrialists and businessmen.

Newfoundland, the newest and most easterly province of Canada, has a thriving fishing industry, and much has been done recently to stimulate the

economy through the diversification of industry. A number of industries have been developed on a local basis, but it is in the mining and forest industries that the greatest progress has been made and upon which a strengthened economy is being built.

The Prairie Provinces

Canada's three prairie provinces—Manitoba, Saskatchewan and Alberta—stretch 1,000 miles to the crest of the Rocky Mountains. Extending from the 49th to the 60th parallel of north latitude, they embrace about 20 per cent of the country's total area.

SASKATCHEWAN OFFERS...

Modern Saskatchewan is prime hunting-ground for the industrialist with a new plant in his planning. This province offers the most economical location in the Prairies for manufacturing and distribution. Saskatchewan's new economy has built-in strength and stability; population and purchasing power to support local industry.

**Financial
assistance
and other
aids
to
industry**

Saskatchewan's INDUSTRIAL DEVELOPMENT FUND makes Loans to new and expanding industries. Large and small industries have received financial aid from the Fund.

Loans are available in amounts up to 50% of fixed assets

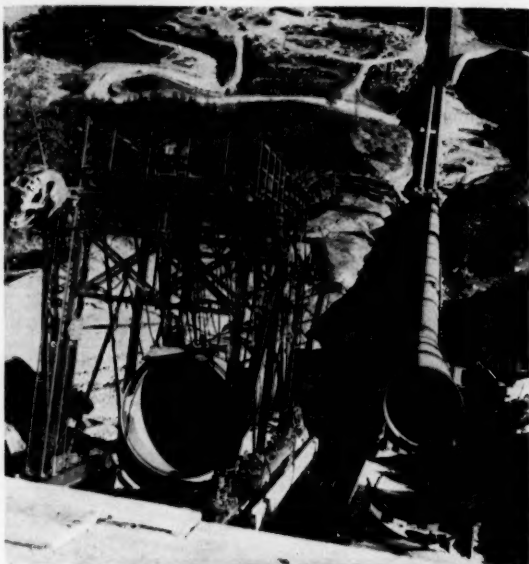
Standard repayment period is five years — the rate of interest is 6%

Inquiries regarding this financial aid should be directed to Saskatchewan's Industrial Development Office. The office offers a number of specialized services to industry in fields of research, consultation, information, and promotion.

Saskatchewan's manufacturing output has doubled since the war. This resource-rich province has oil, natural gas, iron, uranium, potash, coal, copper, zinc, sodium sulphate, other minerals, and a great forest resource awaiting development. It will become a steel producing centre in 1960. One of the world's largest rolled-earth fill dams, a \$184,000,000 project, is under construction on the South Saskatchewan River.

A postcard will put your name on the mailing list for the monthly bulletin, *Industrial Saskatchewan*.





Homes and industries on the Lower Mainland and Southern Vancouver Island will be able to draw 681,500 horsepower from the Bridge River area when the stream's second-stage hydro development is completed next year. Bridge No. 1 powerhouse is in the foreground, and the 320,000-h.p. Bridge 1 plant is a half-mile away on the shore of Seton Lake.

In Manitoba, agriculture and industry are full partners in a well-balanced economy. Diversity of production is largely the result of a planned development program conducted by provincial government and business leaders.

Winnipeg, the capital of Manitoba, is characterized as the keystone of the

transcontinental arch of Canadian provinces, and it is the hub of east-west and north-south rail, road and air transportation in the very center of the continent. About a third of Manitoba's population resides in Winnipeg and environs.

The city has more than 2,000 acres allotted for industry. Some of this land

is fully serviced and the remainder will be developed as the demand warrants. The going price for most municipally owned property varies from \$4,350 an acre to as low as \$1,000 an acre.

Another community with a promising future is Portage La Prairie which has been mainly a local distributing and trading center for a wealthy agricultural district. New industry has been moving in, however, one of the most recent being a multi-million dollar plant of Campbell Soup Company Ltd.

Gurney Evans of Winnipeg is minister of Manitoba's Department of Industry and Commerce.

Saskatchewan has a total area of 251,700 square miles. Its population of about a million is concentrated in the grain growing plains of the South. The province's flat prairie lands produce more than 60 per cent of Canada's wheat, and it has 136,000 square miles of timberlands. And, the area north from the park lands and commercial forests has in recent years become the scene of momentous mineral discovery and unprecedented mining activity.

Oil, natural gas, and potash now highlight the picture in the southern half of the province, and uranium in the north.

RAW MATERIALS AT SOURCE

In Calgary you're in the nerve-centre of western Canada's oil and gas industries. Consider the economic advantages from the standpoint of raw materials! Hydrocarbons and chemicals are available at source for the manufacture of plastics and other finished products.

READY-TO-OCCUPY PLANT SITES

Calgary's well-planned industrial sites are served by rail lead and roadways . . . fully serviced with natural gas, hydro-electric power, pure industrial water, sanitary sewers. Utility rates are among the lowest in North America.

READY ACCESS TO MARKETS

Calgary is right at the crossroads of western Canada's transportation services . . . gives direct rail, road and air communication with major market centres across the nation. For a strategic location with unlimited growth potential, look to Calgary!

For information on industrial sites in Calgary write K. S. Ford, Coordinator of Industrial Development, Dept. FP-CP.R, City Hall, Calgary, Alberta.

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CALGARY

ALBERTA CANADA

**For
Petrochemical
Progress
... Check
CALGARY'S
"Three R's"**



Three basic reasons why a Calgary site is ideal for a profitable manufacturing operation - - - with unlimited future expansion.



Canadian Gov't Travel Bureau Photo

With its vast land area and highly varied topography, Canada offers an infinite variety of scenic and recreational attractions. An example of a spot for summer relaxation is this beach and swimming pool at the Algonquin Hotel in St. Andrews, New Brunswick.

The prospect for further huge development may be seen in the fact that 40 per cent of Saskatchewan lies in the Pre-cambrian Shield, a treasure-trove of metals. Another 50 per cent of the land area is underlain by sedimentary rocks containing petroleum, gas and coal deposits and great supplies of industrial minerals.

Regina, the "Queen City" capital of Saskatchewan is the scene of ever increasing activity, and a strong program of industrial development is being directed from there by the province's Industrial Development Office of which D. H. F. Black is director.

This office observes: "The wealth of Saskatchewan's forests, farms, mines and oil is giving new direction and range to human resources, building population, increasing purchasing power, and opening up wide new fields of opportunity for the manufacturer."

The Province of Alberta has an area of 255,285 square miles, of which 248,800 square miles are land surface. Of the total land area, a million acres are agricultural, with 44 million acres occupied. The province has a total population of 1,123,000.

Although it is traditionally an agricultural province, Alberta's pattern of progress has been highlighted by the discovery of and development of gas and oil resources and by the subsequent establishment of industrial giants.

These include pipelines carrying the lifeblood of industry across the continent, petrochemical plants, metal refineries made economically feasible through low-cost processing.

Alberta's capital is Edmonton, a fast growing community that is referred to as the "Oil Capital of Canada," as well as the "Gateway" to the Canadian north at the aerial crossroads of global transportation.

It is noteworthy, too, that the splendor of the Rocky Mountains in Alberta and the great variety of other scenic and recreational facilities of the province have attracted so many visitors that tourism now ranks as the province's third most important industry.

Another important spot in Alberta is the fast-growing city of Calgary, the second largest in the province. With a population of more than 187,000, it is in the center of a trading area with a population estimated at 425,696.

The city also is a hub of transportation, including air, rail and highway, and is an ideal wholesale distributing center.

Electric power is supplied to Alberta by Calgary Power Ltd., a privately owned utility, and this organization is ready at all times to assist site-seekers with full information about the province.

Full aid is available too from the Industrial Development Branch of Al-

SAVE 30% on LABOUR; MALE RATES FROM \$1.14/HR.

\$3,832,158,000.00 IN LOCAL BUSINESS YEARLY

115 INDUSTRIES & HUNDREDS MORE FIRMS FEED BUSINESS BACK INTO YOURS

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DEFENCE PRODUCTION

450,000 BUSY PEOPLE IN OUR TRADING AREA

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OTTAWA

4 INDUSTRIAL SUBDIVISIONS OPENING IN 1959

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THIS IS CANADA'S MIGHTY MIDDLE



FLASH!

Just off the press is a comprehensive 105-page economic survey of Ontario's great northwest. Compiled by the Department of Economics of the Ontario Government, it is crammed with authentic and statistical information on this fast-developing section of Canada. United States industries seeking Canadian expansion and markets will want to study this report. For a copy write to:

**NORTHWESTERN ONTARIO
DEVELOPMENT ASSOCIATION**
Room 208

**News-Chronicle Building
Port Arthur, Ontario**

STRATFORD has the PROPERTY and SKILLED LABOUR

Stratford, Ontario is one of the few communities in all of Canada that is organized to offer new industries a "true package deal." You design your plant, select your own contractor, build on our industrial land, if desired, and we pick up the tab. The plant is then leased to you on a short or long term, or you may retain title if you so desire.

Stratford has been known for years as a home of responsible labour, strike history is remarkably low, and skilled labour is available for practically all trades.

CANADA'S CITY OF PLANNED PROGRESS

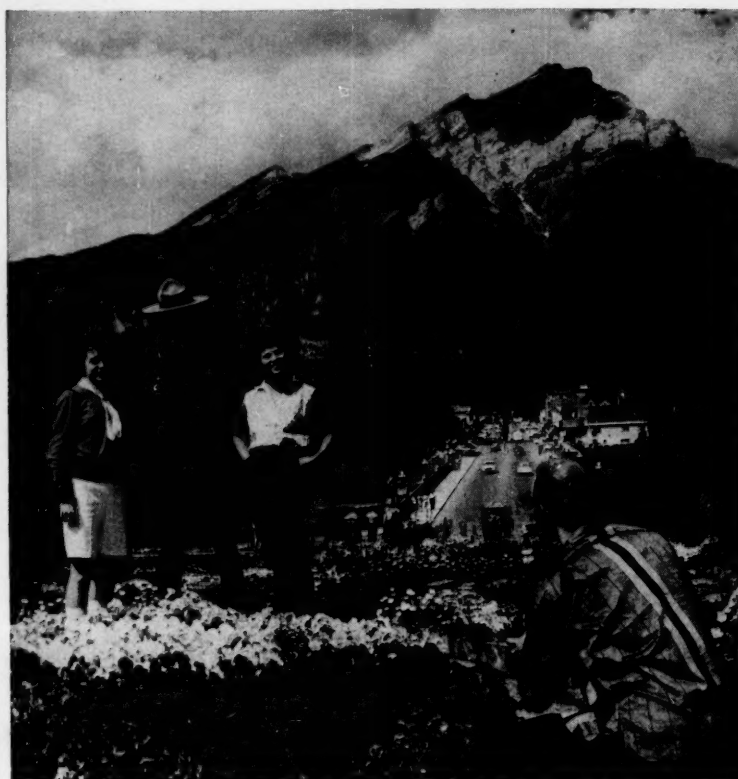
Stratford was the first city in Ontario to take positive action in planning for growth. The city keeps ahead of growth by providing adequate services. There is beauty all around in Stratford where 200 acres of parks gives the largest area of park land per capita of any Canadian city. There are many churches, an art society, hobby groups, concert organizations, sports and of course the Stratford Shakespearean Festival. Stratford is an ideal place to live and work.

**STRATFORD . . . WHERE
INDUSTRY AND THE
ARTS COMBINE.**

For Copy of Industrial Brochure—
Write or Phone:

**MR. THOMAS J. FLOOD
STRATFORD INDUSTRIAL
COMMISSION, STRATFORD
ONTARIO, CANADA**

CANADA



Canadian Gov't Travel Bureau Photo

Tourists take pictures in Banff, Alberta, with Banff Avenue and Cascade Mountain in the background. The splendor of Rocky Mountains in Alberta and the great variety of other attractions has made tourism the province's third most important industry.

Berta's Department of Economic Affairs.

British Columbia

The most westerly province in Canada, British Columbia is the third largest of the 10 provinces, having an area of 366,255 square miles.

In value of manufactured goods, B. C. ranks third. The estimated gross value of production for 1958 was \$1,780,000,000.

The 10 leading manufacturing industries are sawmills, pulp and paper, petroleum products, veneers and plywoods, fish-processing; sash, door and planing mills, miscellaneous food preparations, slaughtering and meat-packing, shipbuilding and fertilizers.

Capital spending for manufacturing growth was approximately \$268,200,000 in 1957 and \$110,900,000 in 1958.

Another good indication of the tremendous growth that the province has enjoyed may be seen in retail trade figures, the volume having increased from \$817,772,000 in 1948 to \$1,650,000,000 last year.

Forming the backbone of the British Columbia economy is forestry. The estimated net value of all forest industries amounted to \$542,000,000 in 1958, or approximately 40 per cent of total production. Known forest potentials should enable the industry to greatly increase and eventually to double present output.

The province has a wide variety of topography, much of which is either rugged plateau or mountain range. It is very attractive to tourists and abounds in wildlife that makes it a mecca for hunters and fishermen.

The provincial capital is Victoria which is noted for its quaintness, charm and beautiful gardens.

Vancouver is Canada's "Pacific Gateway," is the western terminal of the two great transcontinental railways. It is a center of industry and both land and sea commerce.

Aid to site seekers may be obtained from British Columbia's Department of Industrial Development, Trade, and Commerce at Victoria. R. W. Kersey is Industrial Commissioner.

manufacturers record

THE NATIONAL MAGAZINE OF PLANT LOCATION NEWS

EXPANSION BRIEFS

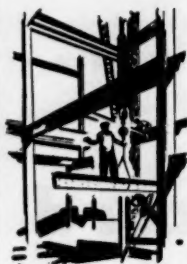
CHICAGO. Construction is under way on a new plant near here for Waco Manufacturing Company. To be completed in late Summer, it will have 48,000 square feet of floor space. It will represent an investment of \$300,000 and will be on a site of two and a half acres.

SAO PAULO, BRAZIL. Limited pilot production has just been started at the new \$10 million truck axle plant which was established here jointly by Rockwell-Standard Corporation and Companhia Brasileira del Material Ferroviario of Sao Paulo. With a plant area of 250,000 square feet, the facility's gear-production capacity will be approximately 30,000 a month.

BESSEMER, ALABAMA. Work was started in July on a new multimillion-dollar plant in Bessemer for W. S. Dickey Clay Manufacturing Company. When completed in 1960, it will have a capacity of 50,000 tons annually. It is expected that production of vitrified clay sewer pipes and other products will begin in early summer of next year.

SASKATOON, SASKATCHEWAN. Goodyear Tire and Rubber Company of Canada is building here a new warehouse to cost a half million dollars. To be one of the most modern such structures in Canada, the warehouse will have 40,000 square feet of floor space. About 40 persons will be employed.

JOHNSON CITY, TENN. A November 1 completion date has been set for the new Imperial Furniture Company plant here. Products will include a line of dining room and bedroom furniture. The facility, with 200,000 square feet of space, will have some 400 employees.



NEW PLANT SUMMARY

BY DONALD V. QUINN

The following is a summary of major industrial plants reported to INDUSTRIAL DEVELOPMENT during the month of June, 1959, by industries and industrial development organizations in the United States, Canada, and territories.

Number of employees is indicated by the code: A (under 25); B (25-100); C (100-250); D (250-1,000); and E (over 1,000).

ALABAMA

No plants reported.

ALASKA

No plants reported.

ARIZONA

No plants reported.

ARKANSAS

Bloomer—Osburn Broiler Processing Co.; Poultry processing. In Oper. \$750,000. (C)

Blytheville—Central Metal Products, Inc.; Lawn Mowers. Plans announced. \$250,000.

Clinton—Clinton Poultry & Egg, Inc.; Olen McKnight, Mgr. Processing poultry. Est. date of Oper., June 1959. \$250,000. (B)

Fordyce—Bryant Stove and Heating Co.; Stove Mfg. Plans announced. (B)

Fort Smith—Eads Bros. Furniture Co.; Upholstered living room furniture. In Oper. 30,000 Sq. Ft. (B)

North Little Rock—Arkansas Furniture Mfg. Co.; Bedroom and livingroom furniture. Plans announced. 20,000 Sq. Ft. (C)

Searcy—J. B. Matthews Co.; A. E. Fox, Pres. Bronze Memorial & Dedication Plaques. Est. date of Oper., June 1959. (C)

Texarkana—Texarkana Newspapers, Inc.; Walter Hussman, Pres. Newspaper publishers. Plans announced. \$750,000.

Trumann—Poinsett Lbr. & Mfg. J. A. Crozier, Works Mgr. Cabinets for sewing machines. Est. date of Oper., June 1959. (D)

Walnut Ridge—Vulcan Corp.; Joseph B. Reynolds, Pres. Wooden shoe lasts. Est. date of Oper., Oct. 1959. 27,000 Sq. Ft. (C)

Wynne—John Addison Footwear, Inc.; Shoe mfg. Plans announced. 69,000 Sq. Ft. (D)

CALIFORNIA

Anaheim—Thompson Ramo Wooldridge Inc.; Stanley C. Pace, V. Pres. & Gen. Mgr. of Tapco Group. East street and Ball Rd. Hydraulic hardware such as accumulators, reservoirs, linear and rotary actuators, boosters and valves for aircraft and missiles, structural members for aircraft and rocket motor cases for missiles. Plans announced. \$2 million. 48-acre site. 120,000 Sq. Ft.

Burlingame—American Motors Sales Corp.; Mark Page, Zone Mgr. Auto parts warehouse. In Oper. 35,000 Sq. Ft.

Fresno—Dow Chemical Co.; W. B. Sander, Mgr. Poly-film. Est. date of Oper., early 1960. 4-acre site. (C)

Los Angeles—Rocket Dyne; Thrust chambers and turbo-pumps. Under Constr. 150,000 Sq. Ft.

Palos Verdes—Nortronics; (Div. of North-

rop Corp.) Dr. William F. Bellhaus, V. Pres. & Gen. Mgr. Research center. Astronertial and inertial guidance systems, navigation and guidance computers, infra-red and optical systems and equipment for missiles, aircraft, space and interplanetary vehicles. Est. date of Oper., summer 1960. \$4 million. 50-acre site. (D)

Richmond—Kenosha Auto Transportation Co.; James Harakas, Rep. 860 S. 10th St. Foreign car storage and processing center. Under Constr. 14-acre site. \$400,000. (B)

Salinas—The Nestle' Co., Inc.; Dr. John Sluder, V. Pres. Chocolate products. Under Constr. 30-acre site. (C)

San Francisco—Cyclops Iron Works; Ray Etienne, Pres. Jennings St. Refrigeration equip. Under Constr. 45,000 Sq. Ft. Est. date of Oper., Oct. 1959. \$500,000.

Santa Ana—Engineered Electronics Co.; T. W. Jarmie, Pres. Chestnut Ave. & McClay St. Plug-in electronic circuits. Under Constr. Est. date of Oper., early 1960. 19-acre site. 23,000 Sq. Ft.

Santa Rosa—Fersolin Corp.; Commercial fertilizer using sawdust as base. Under Constr. \$500,000. 52-acre site.

Standard—Pickering Lumber Corp.; Frank F. Momyer, Pres. Plywood. Plans announced. \$Multi-million. 120,000 Sq. Ft. (C)

Torrance—Belond Industries, Inc.; Robert W. Godfrey, V. Pres. & Gen. Mgr. Steel tube producing and processing. Under Constr. Est. date of Oper., Oct. 1959. 100,000 Sq. Ft. 9-acre site.

Visalia—Anderson Bakeries Inc.; Clarence Yohn, Plant Offl. Pretzels. Est. date of Oper., Nov. 1959. 20,000 Sq. Ft. (B)

Visalia—Bowser Inc.; Keith Clark, Plant offl. Electronics. Est. date of Oper. Sept. 1959. 30,000 Sq. Ft. (C)

COLORADO

No plants reported.

CONNECTICUT

Norwich—Artistic Wire Products Co.; Rudolph C. Planeta, Pres. Household and coated wire products. Plans announced. 133,927 Sq. Ft.

DELAWARE

New Castle—Snyder Corp.; Arnold Lowe, Offl. Resins. Est. date of Oper., Dec. 1959. \$3 million. (B)

Seaford—Cargill, Inc.; Carl W. Ritchie, Offl. Soy bean storage & transportation, feed Mfg. & sales. Est. date of Oper., Oct. 1959. \$1 million. (C)

DISTRICT OF COLUMBIA

No plants reported.

NEW PLANTS

FLORIDA

Brookville—New Haven Dev. Co. of Fla.; S. David Leibowitz, Pres. Electronic devices. Est. date of Oper., Fall 1959. (D)

Eglin Air Force Base—Burroughs Corp.; Electronics. Est. date of Oper., May 1959. (B)

Eglin Air Force Base—Douglas Aircraft; Engineering. Est. date of Oper., Dec. 1959. (E)

Fort Lauderdale—Coronet Kitchens, Inc.; Custom-made wood cabinets. Under Constr. Est. date of Oper., July 1959. 2½-acre site. 42,500 Sq. Ft. \$456,000. (C)

Jacksonville—Campbell-Lurie Plastics, Inc.; Robert Lurie, Pres. Highway Ave. Plastic items—building materials, sliding panels, wall partitions, bathtub enclosures and wall covering. Packaging products. Under Constr. Est. date of Oper., Aug. 1959. 12,000 Sq. Ft. (B)

Melbourne—Camair Corp.; William F. Taylor, Pres. Airplanes. (2 engine executive aircraft.) Est. date of Oper., Sept. 1959. 10,000 Sq. Ft. (B)

Melbourne—Radiation Inc.; George S. Shaw, V. Pres. Electronic research and development. Under Constr. \$4 million. 60-acre site.

Miami—Hohmann & Barnard, Inc.; Paul N. Doran, Mgr. Metal building specialties. Est. date of Oper., Feb. 1959. 10,000 Sq. Ft.

Pensacola—Seven-Up Bottling Co. of Pensacola; Phillip Ellwein, Pres. Bottled soft drinks. Est. date of Oper., Oct. 1959. (B)

Plantation—Wilson's of Cleveland; Miniature motors & accessories. Est. date of Oper., Fall 1959. (B)

Quincy—Valley Feed and Supply Co. Inc.; George Plitt, Pres. Home & garden supplies. Pet foods & supplies. Est. date of Oper., Sept. 1959. (B)

Tampa—Cavalier Carton Co.; Clyde Thompson, Pres. & Plant Mgr. N. Anderson Rd. and Diana Ave. Folding and set-up paper cartons, including printing, die-casting, laminating, cutting and gluing. In oper. 2½-acre site. 10,000 Sq. Ft. (B)

Williston—Hawk Helicopter Co.; William Gunther, V. Pres. Pickling government helicopters. Plans announced. 250,000 Sq. Ft. (B)

GEORGIA

Douglasville—Ledbetter-Johnson Co.; Asphalt Products. Plans announced. \$200,000. (B)

Cairo—Graco Dehydration, Inc.; Commercial feed processing operation, utilizing Bermuda grass. Under Constr. \$250,000.

Hawkinsville—Lee Mfg. Co.; Apparell. Plans announced. \$300,000. (C)

Waynesboro—Aluminum Chair Corp.; Aluminum Chairs. Plans announced. \$400,000. (D)

HAWAII

No plants reported.

IDAHO

Bovill—J. R. Simplot Co.; W. Grant Kilbourne, V. Pres. & Gen. Mgr. Clay and silica refining plant. Under Constr. \$2 million. (B)

ILLINOIS

Chicago—Victor Chemical Works; Rothe Weigel, Pres. Elemental phosphorus, phosphates and phosphoric acid. Est. date of

NEW PLANTS

Opr., late 1959. 35-acre site. (C)

Chicago—Young Spring & Wire Corp.; 5020 W. 73rd St. Auto-motive car seats. Est. date of Oper., Aug. 1959. \$1.5 million. 220,000 Sq. Ft.

Elk Grove—Sterling Automotive Mfg. Co.; Automotive parts. Under Constr. \$400,000.

Melrose Park—Alberto-Culver Co.; 25th Ave. and Armitage. Toiletries. Est. date of Oper., Nov. 1959. \$1 million. 100,000 Sq. Ft.

Mt. Prospect—Charles Bruning Co.; Herbert F. Bruning, Pres. Research laboratory—dizotype copying machines and equipment for general office use and for the engineering and architectural professions. Also research in light-sensitive reproduction systems. Est. date of Oper., Dec. 1959. \$1 million. 27,000 Sq. Ft. (B)

Peoria—C. A. Reed Co.; Roth B. B. Reed, Pres. Paper, paper tableware, napkins, plates, cups and table covers. Plans announced. 40,000 Sq. Ft. 2-acre site.

INDIANA

Herrien Springs—Welco Products Co., Inc.; Electrical wiring assemblies for appliance and automotive industries. Under Constr. Est. date of Oper., July 1959. (C)

Evansville—Aeromotive Metal Prod.; Metal canopies and combination bumper-steps used to adapt pickup trucks for use by sportsmen. Plans announced. (B)

Goshen—Star Tank and Boat Co.; Arthur E. Schrock, Pres. College Ave. Rd. Boats. Est. date of Oper., late fall. 100,000 Sq. Ft.

Hammond—American Maize-Products Co.; James W. Evans, Res. V. Pres. Starches, syrups and other derivatives. Est. date of Constr. Mid-summer 1959. 19,000 Sq. Ft. Est. date of Oper., early 1960.

Mount Vernon—General Electric Co.; Dr. A. E. Schubert, Gen. Mgr. Lexan Polycarbonate resin. Est. date of Oper., Late 1960. 160-acre site. \$Multimillion. (C)

IOWA

Cedar Falls—Viking Pump Co.; Ted Davidson, Plant Offl. Rotary Pumps. Est. date of Oper., Spring 1960. \$350,000. 40-acre site.

Clinton—Dairypak Butler Inc.; J. C. Good, Gen. Mgr. Milk cartons and paraffined food containers. Plans announced. 40,000 Sq. Ft. Est. date of Oper., 1960. (B)

Des Moines—Midwest Burlap Bag Co.; Harry Pomeranz, Pres. Multiwall bags. Est. date of Oper., Summer 1959. \$475,000. (B)

Marshalltown—Gray Iron Corp.; J. W. Fisher, Pres. Castings. Est. date of Oper., Fall 1959. \$600,000. (C)

Mt. Pleasant—Curl Eng. & Mfg.; Raymond Curl, Pres. Truck bodies for bulk grain. Est. date of Oper., Fall 1959. (B)

New Market—Skyline Plastics Corp.; Al Maione, Plant Mgr. Fiberglass boats. Est. date of Oper., Fall 1959. (B)

Strawberry Point—Maquoketa Valley Co-operative; John Thompson, Pres. Hwy #3. Dairy products. Est. date of Oper., Nov. 1959. \$375,000. 15-acre site.

KANSAS

Kansas City—The Gates Rubber Co.; William J. Noellsch, Dist. Mgr. 3220 Brinkerhoff Rd. Warehouse. Est. date of Oper., Nov. 1959. \$350,000. 40,000 Sq. Ft. (B)

Topeka—AB&T Grain Co.; A. K. Blosser, A. K. Blosser, Jr., Robert C. Taggart and W. H. Addington, Partners. 215 Strait. Grain

storage. Plans announced. 1,300,000 Cu. Ft. \$350,000.

KENTUCKY

Franklin—Marvel Ind. Inc.; Carl Wagner, Plnt. Offl. Steel Fabricating. Plans announced. \$125,000. (B)

Harlan—International Harvester Co.; Coal washing plant. In Oper. \$1 million.

Hartford—Standard Brass Corp.; John Q. Adams, Plant Mgr. Stamped furniture hardware. In Oper. (C)

Lebanon—Lion Uniform Co.; J. L. Hardesty, Jr., Mgr. Work uniforms. Under Constr. (B)

Louisville—Gamble Sports Products, Inc.;

Harold C. Moser, Pres. Plastic coated bowling pins. Plans announced. \$55,000. (B)

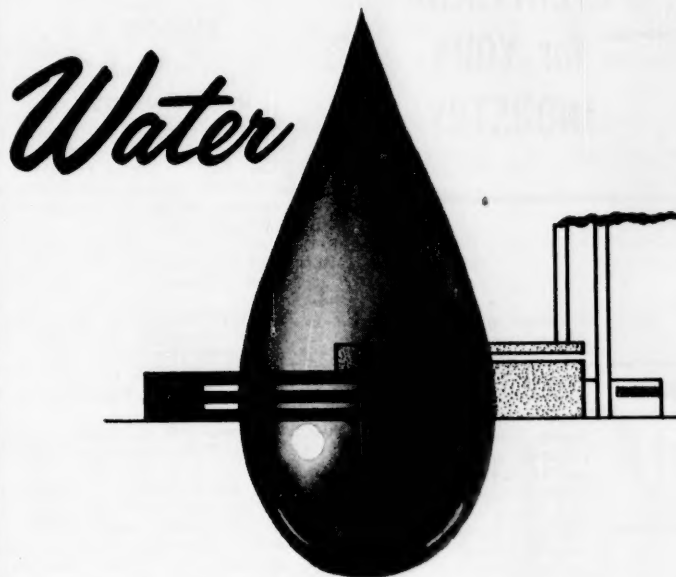
Louisville—MacKay Hayes Corp.; Elmer Todd, Pres. Rotogravure printing cylinders. In Oper. (B)

LOUISIANA

Amite—Hermetype Homes, Inc.; Paul Kapelow, Offl. Prefabricated houses. Est. date of Oper. May 1959. \$216,000. (B)

Baton Rouge—Cotton's Inc.; W. Cotton, Offl. Bakery Mfg. Est. date of Oper., 1961. \$2.5 million. (B)

New Orleans—J. A. Folger & Co.; Joseph S. Atha, Pres. Hwy 90 & Old Gentilly Rd.



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NEW PLANTS

Coffee. Est. date of Oper. Summer 1960. \$Multi-million. 20-acre site.

New Orleans—PAM, Inc.; P. Q. Menard, Offl. Display material. Sign Mfg. Drug & tobacco Mfg. Est. date of Oper., June 1959. \$288,946. (B)

Plaquamine—Dow Chemical Co.; A. P. Bentel, V. Pres. Vinylidene chloride polyethylene. Chlorothene. Est. date of Oper., Mid 1961. \$12 million.

Shreveport—Shreveport Long Leaf Lumber Co.; Joseph F. Loftus, Offl. Woodworking & lumber plant. Doors, windows, cabinets. Est. date of Oper., Aug. 1959. \$370,053. (B)

MAINE

Bangor—A. J. Tucker and Son, Inc.; Arnold S. Tucker, Pres. Shoe Mfg. Plans announced. 30,000 Sq. Ft. \$250,000.

MARYLAND

No plants reported.

MASSACHUSETTS

Billerica—Avery Saul Co.; Thomas F. Foley, Plant Mgr. Pressure vessels. Est. date of Oper., Dec. 1959. 20,000 Sq. Ft. (B)

Boston—Graybar Electric Co.; Electrical products distribution. Est. date of Oper.; May 1960. 55,000 Sq. Ft. (C)

Burlington—Technical Operations, Inc.; Dr. Frederick Henriques, Pres. Electronic instrumentation. Research Lab. Plans announced. (B)

Chicopee—Wall St. Journal; Mr. Bernard Kilgore, Pres. Newspaper production. In Oper. 50,000 Sq. Ft. (B)

Concord—Allied Research Association Inc.; Research and development. Plans announced. \$1.5 million. (D)

East Longmeadow—R. E. Phelan Co., Inc.; Magneto parts. Plans announced. \$100,000. (B)

Leominster—Foster Grant Co., Inc.; Dr. Raymond H. Hartigan, V. Pres. Research Lab. To improve the durability and versatility of polymer products, including regular and high-impact polystyrene, nylon 6 and styrene acrylonitrile. Under Constr. \$1 million. 10,000 Sq. Ft.

North Adams—James Hunter, Inc.; Blending equip. for cotton, synthetic and wool fibers as well as card and garnett feeds. Plans announced. \$600,000. 20-acre site.

Waltham—Terrell Corp.; Plastic products. Est. date of Oper., Dec. 1959. 12,000 Sq. Ft. (B)

Westwood—Raytheon Co.; Charles F. Adams, Pres. Electronics warehouse. Est. date of Oper., Dec. 1959. 60,000 Sq. Ft. (D)

MICHIGAN

Buena Vista—McDonald Cooperative Dairy Co.; Ice cream mfg. Plans announced. \$1 million. 50,000 Sq. Ft.

Caro—Weldment-Pacific Inc.; Steel fabricating. Under Constr. (B)

Charlotte—Aluminum Extrusions, Inc.; W. E. Dunlap, Pres. Minimum products. Plans announced. \$700,000. (C)

Clawson—Cargill Detroit Corp.; Donald Cargill, Pres. Special machines, automatic handling systems and combination, conventional machine tools. Est. date of Oper., Oct. 1959. 6-acre site. \$250,000. 18,000 Sq. Ft. (B)

Detroit—McLouth Steel Corp.; M. A. Cud-

lip, Pres. Sintering Plant. Plans announced. \$11 million.

Detroit—Wheel Trueing Co.; H. B. Wallace, Pres. Diamonds—Industrial & gem. Plans announced. \$500,000. (C)

Kalamazoo—Upjohn Co.; E. G. Upjohn, Pres. Research. Plans announced. \$15,400,000. (E)

Muskegon—Sealed Power Corp.; P. C. Johnson, Pres. Automobile parts. Plans announced. \$300,000. (E)

Midland—Kaiser Aluminum and Chemical Corp.; Periclase, a crystalline chemical used in the manufacturing of refractory brick for industrial furnaces. Plans announced. \$3 million.

Owosso—Universal Electric Corp.; G. W. Hoddy, Pres. Fractional Horse-power motors. Under Constr. \$200,000. (E)

Quincy—General Cable Corp.; J. R. MacDonald, Pres. Cable & wire Mfg. Plans announced. 60,000 Sq. Ft. (C)

Sparta—Muskegon Piston Ring Co.; G. W. Lundeen, Pres. Piston ring casting. Under Constr. \$150,000. (E)

MINNESOTA

No plants reported.

MISSISSIPPI

Charleston—Charlton Mfg. Co.; Sol Heyman, Sec. Treas. Sportswear. In Oper. \$ million. (C)

Clinton—First Carton Corp.; John F. Babbitt, Jr., Pres. Paper cartons and boxes. Est. date of Oper., Oct. 1959. \$500,000. (C)

Forest—Ray Fechtel Enterprises, Inc.; Ray Fechtel, Offl. Poultry. Est. date of Oper., June 1960. \$650,000. (D)

Greenville—Carrick Products Co.; C. W. Carrick, Pres. Auto parts—window regulators, glass channel assemblies, radio grills, etc. Plans announced. 115,000 Sq. Ft. \$1 million. (D)

Greenwood—Art Publishing Co.; Mfg. of picture frames and mirrors. Under Constr. (B)

Hamilton—American Potash and Chemical Corp.; Parker Dunn, V. Pres. Sodium Chlorate. In Oper. \$5 million.

Hattiesburg—F. S. Pre Stress, Inc.; Prestressed Concrete building members. Est. date of Oper., Fall 1959. \$350,000. (B)

Houston—Southern Container Corp.; Warren Hood, Pres. Corrugated Boxes. Plans announced. \$2 million. (C)

Jackson—General Mills; Egg-packing. Est. date of Oper., Late 1959. (C)

Marks—Marks Mfg. Co.; Irwin Green, Pres. Metal Moulding. Est. date of Oper., Oct. 1959. \$250,000. (C)

Meridian—Meridian Malleable Iron Co.; Mr. Scot Roley, Offl. Malleable Castings. Est. date of Oper., July 1959. (B)

Meridian—Mississippi Malleable Iron Co.; L. E. Robey, Pres. Sprocket chains & castings. Est. date of Oper., Aug. 1959. (B)

Meridian—White Products, Co.; Water heaters. Est. date of Oper., Oct. 1959. (B)

Pascagoula—Bluff Creek Canning Co.; Cat Food. Est. date of Oper., Fall 1959. (B)

Picayune—Stewart-Duravan Co.; R. J. Stewart, Offl. Refrigerated truck bodies. Plans announced. 5-acre site. (B)

MISSOURI

Afton—White-Rodgers Co.; J. A. Rodgers, Pres. Automatic temperature controls. Plans

NEW PLANTS

announced. 223,000 Sq. Ft.

Albany—Pepsi Cola Bottling Co.; Beverage Bottling. Est. date of Oper., 1959. 12,000 Sq. Ft.

Canton—Canton Mfg. Co.; Boats & boat trailers. In Oper. 18,500 Sq. Ft.

Charleston—Ashby Metal Forming Corp.; Metal moldings, pipe fittings. Plans announced. 150,000 Sq. Ft.

Hannibal—Tyler Metal Products Co.; Central Gas Heating plant. Plans announced. 40,000 Sq. Ft. \$400,000. (C)

Kansas City—Friendship Lanterns; Mr. Wilkins Mgr. Patio lamps. In Oper. (B)

Kansas City—Metal Specialties; E. B. Ward, Mgr. 824 Winchester. Metal concrete forms. In Oper. 11,000 Sq. Ft.

Tarkio—Tarkio Pelleting Corp.; Process and pellet livestock feeds. Under Constr. 8-acre site.

MONTANA

Great Falls—Floyd Pappin & Son; Robert F. Pappin, Pres. Ready-mix concrete. Est. date of Oper., June 1959. (B)

NEBRASKA

No plants reported.

NEVADA

No plants reported.

NEW HAMPSHIRE

Keene—Miniature precision bearings, Inc.; Horace D. Gilbert, Pres. Research center, and manufacturing of Miniature ball bearings. Est. date of Oper., Late Summer 1959.

NEW JERSEY

Jersey City—Inland Steel Container Co.; Robert J. Greenebaum, Pres. Steel containers for chemical, petroleum, oil, paint, food and refractory industries. In Oper. \$2,750,000. 78,000 Sq. Ft. 10-acre site. (D)

Somerville—American Vitriified Products Co.; E. L. Miller, Pres. Vitriified clay pipe and kindred products. Plans announced. 87-acre site. \$4 million.

NEW MEXICO

Albuquerque—American Gypsum Co.; Gypsum building products. Under Constr. Est. date of Oper., Late 1960. 60-acre site. \$3 million. (B)

Deming—Hydro-Test of New Mexico; Equipment for hydraulic tube testing. Est. date of Oper., Sept. 1959. \$3 million.

Tijeras—Ideal Cement Co.; Chris Dobbins, Pres. Cement. Est. date of Oper., June 1959. \$12 million.

NEW YORK

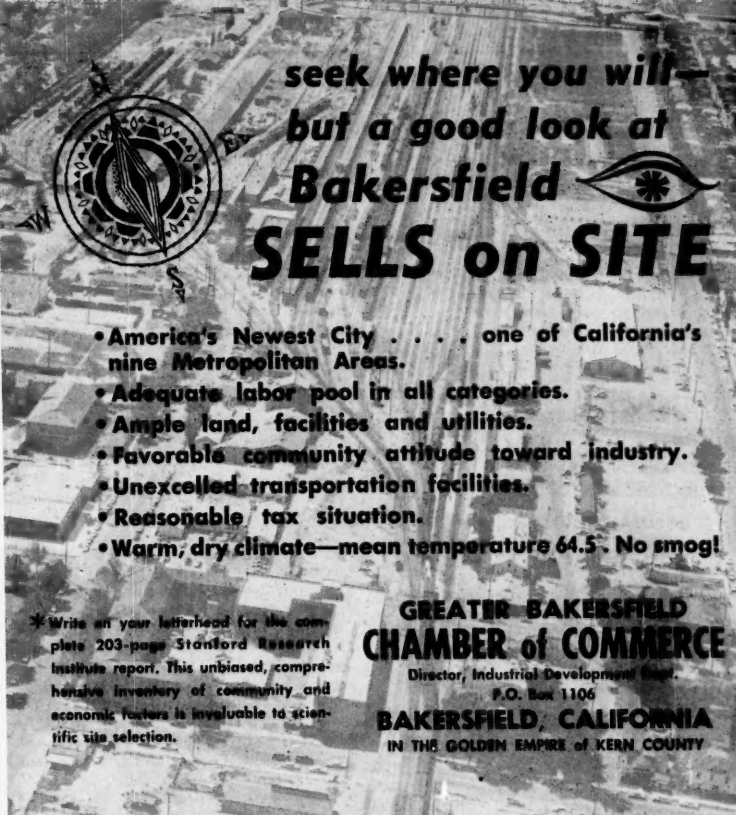
Belmont—Premier Gloves, Inc.; John F. Whiting, Offl. Fabric Gloves for women. In Oper. (B)


Buffalo—General Tire of Buffalo Inc.; Frank R. Rameaka, Pres., 2371 Broadway. Recapping of tires on commercial vehicles. Sales and service of truck tires and wheel balancing and alignment. In Oper. 10,000 Sq. Ft. (B)

Commack—Lily-Tulip Cup Corp.; Commack Rd. Paper Cups. Plans announced. 80-

August, 1959

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NEW PLANTS

660 Sq. Ft. \$1 million. 25-acre site. (C)

Massapequa—Jasen Coats, Inc.; S. Nash, Offl. 60 Merrick Rd. Womens' coats. In oper. (B)

Rochester—Quality Mattress Co.; Fessenden St. Mattresses. In Oper. 5½-acre site. (B)

Saratoga Springs—General Foods Corp.; Carton Mfg. Est. date of Oper., Summer 1960. \$3 million. 140,000 Sq. Ft. (D)

Schenectady—Cheltingham Mfg. Corp.; Morris Krupnik, Offl. 11 Cheltingham Ave. Women's ready-to-wear clothing. In Oper. (B)

Warrensburg—Warrensburg Mfg. Co.; Wilmer Knorr, Offl. Men's shirts. Est. date of Oper., June 1959. (B)

NORTH CAROLINA

High Point—Mr. Apparel, Inc.; Floyd Mehan, Pres. 501 Namgum Ave. Sportswear. Est. date of Oper., June 1959. 28,400 Sq. Ft. (C)

High Point—Sackner Products Inc.; R. K. Schaefer, V. Pres. 418 Broad St. Braided welting & sewn edging. Est. date of Oper., June 1959. 16,000 Sq. Ft.

Pineville—Albright Boat and Marine Co.; Floyd I. Harner, Jr., Pres. Boat Mfg. Plans announced. 13-acre site. 32,000 Sq. Ft.

Sylva—Meat Corp.; Paul Ellis, Div. Mgr. Steam Plant. Under Constr. \$1,250,000.

Statesburg—Eastern Tile and Brick Co., Inc.; Paul S. Singletary, Treas. Clay products. Plans announced. \$500,000. 96-acre site. Statesville—Nu-Lift Mfg. Co.; Lingerie. Plans announced. 40,000 Sq. Ft. (C)

NORTH DAKOTA

Williston—Dakota Salt & Chemical Co.; R. H. Stover, Pres. Evaporative salt plant and a liquid petroleum gas storage depot. Plans announced. (B)

OHIO

Barcus Brothers, Inc.; Lester Barcus, Owner. Warehouse. Plans announced. 13,724 Sq. Ft.

Bowling Green—Wood County Farm Bureau Coop. Assn.; Richard Sherman, Mgr. Grain handling and drying equip. Plans announced. \$600,000.

Cincinnati—All States Freight, Inc.; Bob Williams, Terminal Mgr. Truck terminal. Est. date of Oper., Nov. 1959. 150,000 Sq. Ft.

Cincinnati—Pennsylvania Railroad, Diesel Oil storage depot. Plans announced. \$300,000.

Cincinnati—St. Joe Paper Co.; W. S. Mills, V. Pres. Corrugated boxes. Plans announced. \$1½ million. 14-acre site. 120,000 Sq. Ft.

Cleveland—Baker Laboratories; Laboratory & Office Bldg. Milk products for children. Plans announced. \$400,000.

Cleveland—Foundry Services Inc.; Foundry-serving warehouse. Est. date of Oper., July 1959. \$300,000.

Cleveland—Master Mechanics Co.; Charles Evans, Pres. & Treas. Special wall and floor coatings. Est. date of oper., 1959. \$500,000.

Cleveland—Tremco Mfg. Co.; 10701 Shaker Blvd. William C. Treuhaft, Pres. Research center, research on products for construction, building maintenance, industrial uses. In Oper. \$1.5 million. 50,000 Sq. Ft. (C)

Mingo Junction—Mingo Oxygen Co.; W. A. Steele, Pres. Oxygen-generating plant. Est. date of Oper., Middle 1960. \$6 million.

Newark—Reichold Chemicals, Inc.; Resins and chemicals. Plans announced. 70-acre site. (C)

Piqua—Atomics International; Kenneth Gay, Dir. of Purchasing. Nuclear Power plant. Plans announced. \$14 million.

Warren—Republic Steel Corp.; T. F. Patton, Pres. Carbon Steel sheets and strip. Special grades of stainless steel, for aircraft and missiles. Est. date of Oper., late 1960. \$45 million.

Xenia—Eavey Co.; Jack Eavey, Pres. Grocery Warehouse. Plans announced. \$700,000.

Xenia—K-S-H Plastics, Inc.; F. L. Hawes, Pres. Plastic Products. Est. date of Oper., Aug. 1959. 14,000 Sq. Ft. (B)

OKLAHOMA

Tulsa—Debron, Inc.; Louis M. Ohls, Pres. U.S. 66 Bvns. Greeting cards. Under Constr. \$1,250,000. 200,000 Sq. Ft. (C)

OREGON

Engene—Greene's Packing Plant; Guy Greene, & W. W. Greene, Principals. Hwy 99. Custom killing, curing smoking and cutting, and engage in wholesale distribution. Under Constr. 42-acre site.

Portland—D. & M. Moulding Co.; Pallets and crating. Plans announced. 40,000 Sq. Ft. \$200,000. 5-acre site.

Portland—United Grocers Inc.; Willard Durst, Pres. Grocery and produce warehouse. In Oper. \$500,000. 51,000 Sq. Ft. 5-acre site.

Sweet Home—Mid Plywood, Inc.; Vernon Geil, Pres. Plywood sheathing. Est. date of Oper., Jan. 1960. \$400,000. (B)

PENNSYLVANIA

Altoona—SKF Industries Inc.; Ball bearings. Plans announced. \$1.5 million. (D)

Brownsville—Hillman Barge & Constr. Co.; Frank P. Silliman, Pres. Inland waterways equip. & structural equip. Plans announced. (C)

Carbondale—Riverdale Mfg. Co., Inc.; 15-17 North Main St. Children's wear. Plans announced. 30,000 Sq. Ft. (D)

East Oakmont—Pennex Products Co.; Pharmaceutical and drug items. Plans announced. 60,000 Sq. Ft. 5-acre site.

Erie—Carburized Drill Steel Inc.; Carburized Drill steel. Plans announced. \$50,000. (B)

Erie—A. O. Smith Corp.; L. F. Smith, Plant Mgr. Micro filters. Plans announced. \$250,000. (C)

Falls—Fruehauf Trailers Co.; Trailers for freight. Highway transportation. Est. date of Oper., 1960. \$3 million. (E)

Florence—Phoenix Steel Corp.; Wide plate, structural shapes and bar products and seamless pipe and tubing. Plans announced. \$40 million. (D)

Johnstown—Best o' the Nest Eggs Inc.; Wm. H. Vancroft, Jr. Chm. Bd. Poultry Processing. Plans announced. \$9 million. 661,500 Sq. Ft. (C)

New Philadelphia—Target Sportswear; Edward Burns, Pres. Pine St. Car coats and sports coats. Plans announced. \$210,000. (D)

North East—Foster Aluminum Co.; Rte. 20. Aluminum Products. Under Constr. 15,000 Sq. Ft. (C)

Philadelphia—Atlantic Refining Co.; Randal W. Reed, Controller. Paraffin wax. Also modern packaging. In Oper. \$18 million.

Pine Grove—Penn Dye and Finishing Co., Inc.; Dyes and finishes knitted fabrics and synthetic fabrics. Plans announced. \$100,000. (B)

Pottsville—Dynamics Reading Chemicals, Inc.; Frank Pace, Jr., Offl. Gases and chemicals from anthracite silt banks. Plans announced. \$100 million. (E)

Pottsville—Textron Metals Co.; Geo. Wm. Miller, V. Pres. Aluminum building products. In Oper. 112,000 Sq. Ft.

Willow Grove—Kehr Products Co.; Davisville Rd. Gravure and flexographic roll printing and bag making. Plans announced. \$500,000. 40,000 Sq. Ft.

Willow Grove—Philco Corp.; James M. Skinner, Jr., Pres. Welsh and township line Rds. Transac Computers center. Under Constr. 72-acre site. \$Multi-million. 200,000 Sq. Ft. Est. date of Oper. Nov. 1959.

PUERTO RICO

Guaynabo—Rice Growers Assoc. of Calif. Rice Mill. Plans announced. 4½-acre site. \$2 million.

RHODE ISLAND

Portsmouth—Raytheon Mfg. Co.; Charles F. Adams, Pres. West Main Rd. Integrated electronic antisubmarine warfare and sonar center. Antisubmarine devices. Plans announced \$2 million. (D)

Providence—Grant Money-Meters Co.; Gardner L. Grant, Gen. Mgr. Coin collection machines. Est. date of Oper., early 1960. \$200,000. (C)

SOUTH CAROLINA

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NEW PLANTS

V. Pres. Tools and dies. In Oper. (B)

Florence—Aluminum Ladder Co., Inc.; Darryl Cramer, Pres. Aluminum ladders. In Oper. (B)

Florence—Pyramid Electric Co.; Ralph Scarano, Pres. Capacitors and electronic components. In Oper. (E)

Greenwood—Chemstrand Corp.; Edward A. O'Neal, Jr., Pres. Nylon yarn. Est. date of Oper., 1960. 1,400-acre site. \$Multi-million.

Mauldin—Carolina Mfg. Co.; Laurens Rd. Packaged Handkerchiefs. Est. date of Oper., Nov. 1959. 21,000 Sq. Ft. (C)

Pickens—Fairhaven Mills, Inc.; Henry M. Haskell, Pres. Rosman Hwy. Blended yarn. Est. date of Oper., Sept. 1959. \$250,000. 13,000 Sq. Ft. 20-acre site.

Sumter—Stress-Crete, Inc.; R. A. Burgess, Pres. Pre-stressed concrete. In Oper. \$100,000. (B)

SOUTH DAKOTA

No plants reported.

TENNESSEE

Athens—Carver Mfg. Co.; Furniture. Under Constr. 35,000 Sq. Ft. (B)

Athens—Kenwill Mfg. Co.; Bathrobes and beachrobes. In Oper. (B)

Carthage—Gordonville Mfg. Co., Inc.; Pianos, organs, furniture and wallboard. Plans announced. 112-acre site. \$Multi-million. (C)

Kingsport—Tennessee Eastman Co.; James C. White, Pres. Kodel-Polyester fiber. Est. date of Oper., Midyear of 1960. \$60 million.

McMinnville—Century Electric Co.; Bob Batha, Mgr. Red Rd. Small electric motors. Plans announced. 100,000 Sq. Ft. 25-acre site. (C)

Mt. Pleasant — Mt. Pleasant Garment Corp.; Glenn O'Neill, Mgr. 1st Ave. Garments. In Oper. (D)

Sunbright—Van Buren Shirt Co.; Wearing Apparel. Under Constr. 11,500 Sq. Ft. (C)

Woodstock—E. I. DuPont De Nemours & Co.; Acrylonitrile. Under Constr. \$Multi-million. 225-acre site. (C)

TEXAS

Beaumont — Stock Purchasers Corp.; Cooper Hawthorne, Mgr. Metal galvanizing, acid-cleaning, metal pickling, high pressure sand blasting, industrial painting and chemical cleaning. Est. date of Oper., July 1959. \$250,000.

Dallas—Fabiricon Products; Ralph A. Smith, Reg. Mgr. High-pressure plastic laminate, used for kitchen drain boards, dinette sets, dining room furniture, wall paneling, shower stalls, and office furniture. In Oper. 10,000 Sq. Ft.

Dallas—J. V. Folsom & Sons; J. V. Folsom, Pres. 9027 Diplomacy Row. Hardware, housewares, yard and garden equip., evaporative coolers and electrical appliance distribution. Under Constr. 16,000 Sq. Ft.

Dallas—Tommy Tucker Plastics; T. T. Tucker. 3411 East Kiest Blvd. Plastics products. Under Constr. Est. date of Oper. Aug. 1959. 20,000 Sq. Ft. 2½-acre site.

Longview — Texas Eastern Transmission Corp.; A. J. Shoup, V. Pres. & Chief Eng. Natural gas compressor station. Plans announced. \$2.5 million.

Houston—Richmond Tank Car and Mfg. Co.; Frank R. Salamid, Jr., V. Pres. 17011

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gives you up - to - the - minute
data about southern industrial
progress.

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is written and edited by a
staff thoroughly familiar with
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ments.

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sive new plant listing carried
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can be your answer to expand-
ed sales in the tremendous and
expanding industrial economy
of the south.

Sample copy available at
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2592 Apple Valley Road
North Atlanta 19, Ga.

NEW PLANTS

Beaumont Hwy. Repair and painting facilities
for rolling stock. Est. date of Oper., June
1959. 60,000 Sq. Ft. \$625,000.

Orange—NGL Corp.; Petroleum processing.
98 octane gasoline. Est. date of Oper., Late
1960. 55-acre site. \$11 million.

Waxahachie—Gay Products Inc.; Roy A.
Workman, Pres. Aluminum outdoor and in-
door furniture. Est. date of Oper., Nov. 1959.
(C)

UTAH

Salt Lake City—Electrolux Corp.; George
Evans, Assist. Treas. Vacuum Cleaners. Plans
announced. (B)

VERMONT

Burlington—George Little Press, Inc.;
George E. Little, Sr., Pres. 20 Mechanic
Street. Offset lithography printing. Est. date
of Oper., July 1959. (B)

Groton—Groton Glass, Inc.; J. F. Louv,
Pres. Mirrors. Est. date of Oper., July 1959.
(B)

VIRGINIA

Lynchburg—Imperial Battery Corp.; Henry
P. King, Pres. Mayflower Drive. Automotive,
diesel and industrial batteries. Under Constr.
(B)

Richmond—Champion Storm Window
Corp.; Sol Bayes, V. Pres. Metal products.
Est. date of Oper., July 1959. 12,000 Sq. Ft.
(B)

Richmond—Virginia Folding Box Co.;
L. B. Chewning, Pres. Paper products for the
tobacco industry. Under Constr. 111,000 Sq.
Ft. (C)

WASHINGTON

Anacortes—Northwest Petrochemical
Corp.; Allen Perkins, Pres. Phenol-cresol re-
covery plant and refinery. Plans announced.
\$500,000.

Seattle—Boeing Airplane Co.; Guilford
Hollingsworth, Dir. Scientific research labora-
tories. Plans announced. 65,210 Sq. Ft. \$2-
250,000.

Seattle—Charles Bruning Co., Inc.; 5901
4th Ave. South. Reproducing machines and
equip. Plans announced. 18,000 Sq. Ft. \$250-
000.

Seattle—Great west Chemical Co.; 6900
Fox Ave. Chemicals. Office and warehouse.
Est. date of Oper., July 1959. \$300,000.

Seattle—Northern Pacific Railway Co.;
Produce warehouse, and office. Plans an-
nounced. 38,400 Sq. Ft. \$500,000.

Tacoma—Arrowline Industries, Inc.; Emile
L. Schanno, Pres. Table tops and furniture.
In Oper. (B)

WEST VIRGINIA

Sanderson—Union Carbide Olefins Co.;
Hardwood lumber. In Oper. \$100,000. (B)

WISCONSIN

Elk Grove—Sola Electric Co.; Joseph G.
Sola, Pres. Constant voltage transformers,
fluorescent lighting ballasts, mercury vapor
lamp transformers and regulated direct cur-

rent power supplies. Est. date of Oper., Sum-
mer 1960. 200,000 Sq. Ft.

WYOMING

No plants reported.

CANADA

ALBERTA

Edmonton—Dymer Plastics Ltd.; Plastic
foam insulation. Est. date of Oper., 1960.
\$400,000. (B)

Edmonton—Fibre Glass Canada Ltd.; R.
A. Galbraith, Asst. to V. Pres. Glasfibre prod-
ucts. Est. date of Oper., 1960. \$2 million. (C)

NOVA SCOTIA

Bridgetown—United Elastic Ltd.; Harry
Thompson, Mgr. Narrow elastic webbing and
thermal underwear fabric. Est. date of Oper.,
spring 1960.

ONTARIO

Aurora—Sterling Drug Mfg. Ltd.; Dr. J.
Mark Hiebert, Pres. Drugs, medicinal, health
and other products. In oper. 158,000 Sq. Ft.
17-acre site.

Etobicoke—Grinnell Co. of Canada Ltd.;
10 North Queen Street. Cast iron malleable,
cast steel and bronze fittings, welding fittings;
steel flanges; hangers diaphragm valves;
unit heaters; and industrial supplies. Under
Constr. 7-acre site. 100,000 Sq. Ft. \$750,000.

Toronto—Adams Brands Ltd.; Bertrand
Ave. Chewing gum and confectionery. Under
Constr. 5-acre site. 160,000 Sq. Ft. (D)

Toronto—Walter Dickson and Co. Ltd.; 34
Kern Rd. Distributes stationery and paper
products and manufactures writing instru-
ments such as ball point pens, and plastic
school accessories. Est. date of Oper., Aug.
1959. 14,000 Sq. Ft.

Toronto—Harding Trini-Gravure Ltd.;
104 Bentley Drive. Lithographing, lettering,
die cutting. In oper. 50,000 Sq. Ft. (B)

Toronto—Morganite Carbon Products Can-
ada Ltd.; Mobile drive. Carbon brushes used
in electric generators and motors, and also
other carbon graphite products. Plans an-
nounced. 15,000 Sq. Ft.

SASKATCHEWAN

Saskatoon—Western Cabinet Co.; 42nd
Street. School desks and supplies, office equip-
ment, stacking chairs, and humidified sealed
windows. Under Constr. \$250,000. 10-acre site.
(C)

FOREIGN

Australia—Silverwater. Australian Petro-
chemicals Ltd.; Styrene monomer. Under
Constr. Est. date of Oper., 1961. \$Multi-mil-
lion.

Brazil—Sao Paulo. Robertshaw-Fulton Con-
trols Co.; T. T. Arden, Pres. Automatic
thermostatic controls and automatic precision
control devices. Under Constr. Est. date of
Oper., early 1960.

Italy—Milan. Columbia Carbon Co.; Lyle
L. Shepard, Pres. Carbon black. Plans an-
nounced. \$6 million. Est. date of Oper., Early
1961.

DIRECTED BY

Richard Edmonds . . . 1882-1930
Frank Gould 1930-1943
William Beury . . . 1943-1955
McKinley Conway . . 1956

MANUFACTURERS RECORD

(IN REVIEW)



AUGUST 1885

(AS ABSTRACTED MORE THAN 70 YEARS LATER)

BALTIMORE, MD.

NEW AWNING COMPANY

The Jolife Awning Co. has been organized in Baltimore, with W. J. Jolife, president, E. Shriver Reese, treasurer, and J. C. Vincent, secretary, to manufacture patented window awnings. The Jolife awning possesses many very superior advantages over the window awnings now in use, as an examination will readily show. It can, however, be manufactured more cheaply than the old awnings, notwithstanding its many advantages over them. The office of the company is southeast corner Calvert and Fayette streets.

GOOD TIMES RETURN

A dispatch from Pittsburgh says: "The outlook in the iron trade has not been more favorable for a number of years than it is at present. Signs of improvement are coming to the surface every day, and the manufacturers are beginning to concede that the black mantle of depression is being gradually lifted from the staple industries of Pittsburgh. Orders are increasing rapidly, and many mills are running on double time." From other sections reports of the same character are becoming quite numerous and it now looks as though the turning point toward good times has been passed.

GOING TO ADVERTISE

In spite of the not any too favorable state of the watch trade in Switzerland, some new factories have recently been established—one in Breleux, another in Tramelan, and a third in the Canton of Lucerne. The Swiss are waking up to the importance of advertising. A convention recently held at Chaux de Fonds, for the purpose of discussing this question principally, decided that advertising, and especially advertising in English and American papers, was a necessary and indispensable requisite to the watch trade of Switzerland. It was also "resolved" that the American factories owed the largest proportion of their success to their advertising, as the Swiss manufacturers could plainly see by tracing effects to their causes.

ELECTRIC LIGHT COMPANY

The Washington Excelsior Electric Light Co., of Washington, D. C., was incorporated under the laws of West Virginia, July 22, 1885, with Hon. J. F. Dezenzorf, of Virginia; D. C. Forney, of Washington, D. C.; Hon. E. John Ellis, of Louisiana; Hon. Chas. M. Shelly, of Alabama, and A. C. Dezenzorf, of Virginia, as incorporators; capital \$1,000,000. Object—to manufacture artificial light by electricity for District of Columbia.

ATTRACTIVE NEW BROCHURE

The Knowles Steam Pump Works, of Boston, Mass., have published a very attractive pamphlet descriptive of Knowles Improved Fire Pumps. Among their many varieties of

pumping machinery, this company has for years devoted especial care and attention to the manufacture of steam fire pumps, adapting them not only to the peculiarly heavy service which they are frequently called upon to perform, but also to fill the requirements of the various positions where such protection against fire is needed, and to meet the demands of insurance companies and of purchasers. As various systems of fire protection are now employed where steam fire pumps are used as the source of pressure, it is necessary to the proper working of the system that the pumps should be in every particular adapted to the positions for which they were purchased. This has led to a subdivision of this class of their machinery, and the Knowles Pump Works have now a full line of patterns for the different varieties and sizes enumerated in their catalogue. This catalogue will be sent free upon application.

KEEPS BOILERS CLEAN

The importance of keeping boilers clean and free from incrustation and sedimentary deposit is doubtless fully appreciated by the great majority of steam users, though there may possibly be a few who do not realize the necessity for this. The best way in which

to do this, according to the advertisement of the Warner's Heater & Purifier Co., "is to keep out of the boiler that which causes incrustation and sediment." This is the object for which Warner's Purifier and Heater is designed, and the manufacturers assert that it will positively do this. They claim that "this purifier and heater precipitates the mineral salts held in solution before the water reaches the boiler and then injects the water thus purified into the boiler boiling hot. It is an automatic machine entirely outside of the boiler, requiring absolutely no attention from the engineer except to blow off the accumulation of deposit from the bottom of the machine, which acts as a mud-drum. All this is accomplished without the use of chemicals by a purely mechanical process regulated by the principles of natural philosophy."

POSSIBLE MOVE

There is a fair prospect of at least one, and possibly of three or four, large cigar-making companies removing from New York to Jacksonville, Fla. One of these companies is now endeavoring to secure the necessary buildings in Jacksonville, and, if successful, they promise that their weekly pay roll will be from \$6,000 to \$8,000.



"DIETZ"

No. 2

Fire Place

TUBULAR

HEATING

STOVE.

For Bed, Bath and Sitting Rooms, Offices, Conservatories

EIGHT INCHES OF FLAME.

NO SMOKE OR SMELL.

R. E. DIETZ, 56 Fulton St., New York.



Industrial Districts

The following planned industrial districts have sites available for immediate construction. Advantages offered by such districts are described in detail in the November-December 1954 issue, pages 6, 7, and 8.

Services offered are indicated by the following code: (A) Architect & Engineer; (C) Construction; (E) Electric Power; (G) Natural Gas; (F) Financing; (P) Paved Streets; (R) Rail Siding; (S) Sewers; (T) Telephone; (W) Water.

Iowa

IOWA "MANUFACTURING MEADOWS"—Clinton, Iowa (population 35,000), 138 miles west of Chicago on Mississippi River and Lincoln Highway (U. S. 30), 190 acres within city. Master plan by Skidmore, Owings & Merrill. Served by Chicago and North Western Railroad. Developed by Clinton Development Company, a civic-non-profit corporation. CHapel 2-4536. R. J. Stapleton, Managing Director. Services available: (a) (optional), (c), (e), (g), (f) (optional), (p), (r), (t), (w), restrictions.

Missouri

PAGE INDUSTRIAL CENTER—St. Louis—planned industrial park, developers—Page Industrial Center, Inc., 7811 Carondelet, St. Louis 5, Mo. Edward L. Bakewell, Realtor. CENtral 1-5555, on Rock Island lines, 60 acres with all services available on property. Restrictions.

Illinois

ILLINOIS INDUSTRIAL VALLEY: Cities of La Salle, Peru, Oglesby, Spring Valley, Ladd, DePue offer planned industrial sites. Excellent transportation via the Illinois River, 7 major railroads, numerous carriers, 2 U.S. Highways. Skilled workers. Power in abundance. Active ID organization to serve you. Robert Blomgren, Director, Box 446, La Salle, Illinois. Phone: CA 3-0227. Services: (a) optional, (c), (e), (f) optional, (g), (p), (r), (s), (t), (w).

Georgia

METROPOLITAN ATLANTA—Five Industrial Districts offering planned sites of varying location, size, price. Services available: (A) optional, (C), (E), (G), (F) optional, (P), (R), (S), (T), (W). In your Southeastern plant or warehouse survey contact: F. Wm. Broome, Industrial Manager, DeKalb County C of C, 250 E. Ponce de Leon Ave., Decatur, Ga. (Atlanta phone, DRake 8-3691).

Available Sites

SUBURBAN ATLANTA—Sites of 2, 5, 10, 25, 50, 100 or more acres. All utilities and rail service in DeKalb County—Georgia's newest industrial area, 70% urban with more than 200 industries in industrial districts and individual tracts. For your new Southeastern plant or warehouse location—inquire and visit through F. Wm. Broome, Industrial Manager, DeKalb County C of C, 250 E. Ponce de Leon Ave., Decatur, Ga. (Atlanta phone, DRake 8-3691).

EXCELLENT SMALL COMMUNITY. Labor surplus due to closing of iron mines. Low rent housing. For data contact Dr. A. B. Grubb, Cripple Creek, Virginia.

LOUISIANA

INDUSTRIAL SITE—with access to river and rail facilities. Outstanding area approx. 13 acres, near New Orleans port limits with full mineral and riparian rights and fronting on paved highway. Priced to sell. Write J. C. Salvant Latter & Blum, Inc., 919 Gravier St., New Orleans 12, La.

CANADA—Serviced Industrial Sites & Factories for Lease & Sale—Contact Industrial Commissioner, Richmond Hill, Ontario.

Near the Crowd—But Not in It Middlesex County, N. J. 20 Miles from New York—50 Miles from Philadelphia. On U. S. No. 1, N. J. Turnpike and Mainline P.R.R. Write for Booklet.

Middlesex County Industrial Department
County Record Bldg., New Brunswick, N. J.

Classified advertising pays off! Whether you have a site or building for sale, need new executive personnel, or offer business properties, a classified insertion is the most economical way to offer it to America's top business leaders.

Available Buildings

Childress, Texas—24,000 sq. ft.—completely sprinkled—1 story, all brick—concrete floor—R.R. siding and truck loading platform—13 ft. ceiling—very favorable labor market—low rental. Write Childress Chamber of Commerce.

Personnel Placement

WANTED: Industrial Director, Columbia (S.C.) Chamber of Commerce. Experience with industrial parks, financing corporations, research, and contact work desired. Excellent opportunity for qualified man. Send complete resume to Thomas M. Brownlee, Exec. Mgr., Chamber of Commerce, Columbia, South Carolina.

Industrial Development Executive—Valuable experience in Southeastern states. Additional experience in civic problems. Prefer Deep South. Write ID Box 8-1.

INDUSTRIAL PROMOTION ENGINEER—Thirty years' experience as a City, Community, State and Real Estate Development Planner and Promoter. I wish to talk to communities that have a desire to become more attractive to industries and better themselves economically. John Leon Hoffman, Registered Engineer and Planning Consultant, Phone 5271, Forsyth, Georgia.

Special Services

SELLING SOUTHERN MARKET? If you're marketing a business product in the South, you need the confidential bi-weekly **SOUTHERN LETTER** to keep posted on new sales opportunities. Write for sample—no obligation. Box SL, Conway Publications, North Atlanta 19, Ga.

A NEW SERVICE

Does your company want to enhance its prestige in the business world? Do your executives deserve wider recognition? Would you like to present a more impressive picture of your company's history and growth? Do you need an easily-readable current description of the facilities and services you offer? Would you like to have such a presentation prepared by an outside group with objective viewpoint and wide experience in business reporting? Interested? Then contact the publishers of **INDUSTRIAL DEVELOPMENT** and **MANUFACTURERS RECORD** to discover how our professional staff can serve you.

Editorial Survey Department
CONWAY PUBLICATIONS, INC.
295 Madison Avenue, New York
or
109 Market Place, Baltimore
or
North Atlanta 19, Georgia

IMPORTANT—when replying to classified advertisements with no address given, write ID Box Conway Publications, Inc., North Atlanta 19, Ga.

RATE INFORMATION

CLASSIFIED RATES: \$4 per line for 1-time insertion, \$3 per line for 12-time insertion. Estimate about 40 spaces in each line, allowing for box number.

PROFESSIONAL CARD & SIR RATES: \$30 per column inch for 1-time insertion, \$23 per column inch for 12-time insertion.

BOX NUMBERS: Publisher will assign box and relay correspondence on a confidential basis if desired.

PROOFS: Not furnished on classified ads.



This Mailing List Can Serve You!

The banks of address plate trays holding the names of **INDUSTRIAL DEVELOPMENT** readers represents years of compilation effort. Today, this list includes 16,000 key executives, including more than 8,000 company presidents in the East and Midwest. Write for details of mail service plan whereby you may use these plates to address your direct mail promotion material.

CIRCULATION DEPARTMENT
Conway Publications, Inc., North Atlanta 19, Ga.

RECEIASES

By Suzanne Johnson

For Your General Check List File

Urban Problems and Techniques edited by Perry L. Norton. A form on technical problems in an expanding urban society.

This is the first in a series through which it is hoped to provide an outlet for detailed discussions of major urban problems and the techniques which professionals of all fields are using to try to solve them.

Among the subjects covered are recreation, central business districts, utilities, industrial performance standards, annexation and three very comprehensive chapters on zoning—Columbus, Ohio Adopts Performance Standards as the Basis for Modern Control of Industrial Nuisances by Edmond M. Loewe, Attacking Smog Through Zoning by Gordon

Whitnall, and Trailers, Trailer Parks, and Zoning Cases by Stephen Sussna. Chandler-Davis Publishing Company, P. O. Box 36, West Trenton, New Jersey. 249 pages.

Measurement and Evaluation of Organizational Performance by Paul Wasserman. An annotated bibliography. Graduate School of Business & Public Administration, Cornell University, Ithaca, New York. 110 Pages. \$3.75.

For Your Area Check List File

Land For Industry . . . The Pennsylvania Case by Robert A. Sigafoos. This exploratory survey takes a kaleidoscopic view of the industrial land question in a cross-section of the many local and regional areas which form, probably, the most heavily industrialized state in the

nation. Institute of local Government, Pennsylvania State University, University, Park, Pennsylvania. 89 pages.

Minnesota's Case for the Electronics Industry. The report encompasses information on all phases of plant location analyses, including emphasis on the critical factors of availability of labor and livability. Northern States Power Company, Industrial Development Department, Minneapolis 2, Minnesota. 57 pages.

The Case For an Alum Plant at Saint Paul. A market research and plant location study. Northern States Power Company, Industrial Development Department, Minneapolis 2, Minnesota. 21 pages.

The Case for A Sulfuric Acid Plant at Saint Paul. A market research and plant location study. Northern States Power Company, Industrial Development Department, Minneapolis 2, Minnesota. 27 pages.

The Case for A Carbon Black Plant at Saint Paul. A market research and plant location study. Northern States Power Company, Industrial development Department, Minneapolis 2, Minnesota. 21 pages.

Directory of Professional Services

When You Need Professional Advice—Consult a Professional



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EXPANSION PLANNING INDEX

For prompt assistance with your planning problems, consult these alert advertisers who are represented in this issue of ID-MR:

PLANT LOCATION SERVICES:

Alabama Power Company, C. H. Killian, Advertising Manager, 600 N. 18th St., Birmingham, Ala. (Ad page 67).

Province of Alberta, Department of Industries & Labour, E. S. Bryant, Director of Advertising, 502 Legislative Bldg., Edmonton, Alberta, Canada (Ad page 51).

Bakersfield Chamber of Commerce, Don Hoover, 2014 "L" St., Bakersfield, Calif. (Ad page 69).

Baltimore Gas and Electric Company, Robert J. George, Industrial Development Engineer, 1102 Lexington Bldg., Baltimore, Maryland. (Ad page 2).

Baltimore and Ohio Railroad, Gayle W. Arnold, Manager, Industrial Development, Room 1104, B & O Bldg., Baltimore 1, Md. (Ad page 11).

Province of British Columbia, Department of Industrial Development, Trade and Commerce, T. L. Sturgess, Deputy Minister, Victoria, British Columbia, Canada (Ad page 45).

Greater Burlington Industrial Corporation, Charles P. Townsend, Executive Director, 191 College St., Burlington, Vt. (Ad page 5).

City of Calgary, K. S. Ford, Industrial Co-ordinator, City Hall Annex, Calgary, Alberta, Canada (Ad page 62).

Calgary Power Company, Ltd., E. H. Parsons, Director, Industrial Development, Box 190, Calgary, Alberta, Canada (Ad page 50).

Chesapeake and Ohio Railway, Wayne C. Fletcher, Director, Industrial Development, 1103 C & O Bldg., Huntington, W. Va. (Ad 4th cover).

Chicago, Rock Island and Pacific Railroad, P. J. Schmidt, Manager, Industrial Development, LaSalle Street Station, Chicago, Ill. (Ad 2nd cover).

Delhi Industrial Development Association, Raymond Castle, Secretary, Delhi, Ontario, Canada (Ad page 57).

Florence Chamber of Commerce, Harry W. Hlott, Jr., Executive Vice President, City Hall Annex, Florence, S. C. (Ad page 72).

Grand Central Industrial Centre, W. M. Clough, Vice President, P. O. Box 3157, Grand Central Station, Glendale, Calif. (Ad page 3).

Grosvenor-Laing (B.C.) Ltd., General Sir Ouvry Linfield Roberts, General Manager, 640 W. Hastings St., Vancouver, British Columbia, Canada (Ad page 54).

Lodi District Chamber of Commerce, John E. Hoggatt, Manager, 404 West Pine St., Lodi, Calif. (Ad page 5).

Maine Department of Economic Development, Fred A. Clough, Commissioner, New State Office Bldg., Augusta, Maine (Ad page 41).

Manatee County Committee of 100, Harry Lee, Executive Director, Box 360, Bradenton, Fla. (Ad page 68).

Marine Trust Company of Western New York, Maine and Seneca Sts., Buffalo, New York (Ad page 15).

Province of Manitoba, Department of Industry and Commerce, R. E. Grose, Deputy Minister, Winnipeg, Manitoba, Canada (Ad page 47).

Mid-Western Ontario Development Association, R. C. Drew, General Manager, 258 Ontario St., Stratford, Ontario, Canada (Ad page 49).

Bank of Montreal, W. M. Collie, Superintendent, 118 St. James St., W., Montreal, Quebec, Canada (Ad page 34).

New Brunswick Department of Industry and Development, Ronald P. Williamson, Director, Industrial Branch, P. O. Box 1150, Fredericton, New Brunswick, Canada (Ad page 55).

Niagara Mohawk Power Company, Richard F. Torrey, Director of Area Development, 300 Erie Blvd., Syracuse, N. Y. (Ad page 16).

Nickel Plate Road, C. B. Bennett, Terminal Tower, Cleveland 13, Ohio (Ad page 4).

State of North Carolina, Department of Conservation and Development, William P. Saunders, Director, Raleigh, N. C. (Ad page 5).

Northwestern Ontario Development Association, Alexander Phillips, General Manager, Room 208, News-Chronicle Bldg., Port Arthur, Ontario, Canada (Ad page 63).

The Bank of Nova Scotia, Robert E. Oliver, Supervisor, Public Relations and Advertising, Toronto 1, Ontario, Canada (Ad page 40).

Province of Nova Scotia, Department of Trade and Industry, J. R. Bigelow, Deputy Minister, Halifax, Nova Scotia, Canada (Ad page 55).

Orange County Industrial Developers, Inc., Jess N. Stafford, P. O. Box 1848, Santa Ana, Calif. (Ad page 70).

Industrial Commission of Orillia, K. C. Bath, Commissioner, 19 Mississaga St., W., Orillia, Ontario, Canada (Ad page 56).

Ottawa Industrial Commission, R. Bullock, Industrial Commissioner, 705, 111 Sussex Dr., Ottawa, Ontario, Canada (Ad page 63).

La Province de Quebec, Marc Hardy, Director of Advertising, Montreal, Quebec, Canada (Ad page 35).

The Royal Bank of Canada, Business Development Department, 360 St. James St., W., Montreal, Quebec, Canada (Ad page 39).

St. Thomas Industrial Development Corporation, W. H. A. Sparling, General Manager, St. Thomas, Ontario, Canada (Ad page 58).

Saskatchewan Industrial Development Office, Robert Tyre, Director of Advertising, Regina, Saskatchewan, Canada (Ad page 61).

Slouth Estates (Canada) Ltd., W. M. MacKenzie, General Manager, Royal Bank Bldg., Toronto, Ontario, Canada (Ad page 43).

Southern Canada Power Company Limited, L. G. Groom, Industrial Manager, 1450 City Councillors St., Montreal 2, Quebec, Canada (Ad page 45).

Stratford Industrial Development Commission, T. J. Flood, Industrial Commissioner, Stratford, Ontario, Canada (Ad page 64).

Texas Power and Light Company, J. D. Eppright, Director of Industrial Development, P. O. Box 6331, Dallas, Texas (Ad page 1).

Union Pacific Railroad, A. C. Ritter, G. M. of Props. 1416 Dodge St., Omaha, Nebraska (Ad page 71).

Windsor Properties, Inc., W. C. Windsor, Jr., President, 211 Mercantile Commerce Bldg., Dallas, Texas (Ad page 69).

PLANT CONSTRUCTION AND INDUSTRIAL SERVICES:

American Creosote Works, Inc., S. B. Braselman, Jr., Vice President, 1305 Dublin St., New Orleans, La. (Ad page 10).

OTHER SERVICES:

Industrial Sound Films, Inc., Guy H. Tucker, Director of Special Services, Conway Building, N. Atlanta 19, Ga. (Ad 3rd cover).

ID SECRET SITE SERVICE

There may be sound reasons why you should wish to obtain preliminary information on possible sites without revealing your interest or identity. Recognizing this, INDUSTRIAL DEVELOPMENT offers a Secret Site Service to readers who hold positions of responsibility with manufacturers or other business firms having a legitimate interest in sites. Complete information, including site specification forms, will be sent promptly and confidentially at your request. Address SECRET SITE SERVICE, Conway Publications, Inc., North Atlanta 19, Georgia.



*The
Colonel
Says*

We hope the scientists discover that Mars is not inhabited. This country can't afford to stretch foreign aid any further.

FOOD FOR THOUGHT

The young lion tamer was being interviewed on television.

"I understand your father also was a lion tamer," said the announcer.

"Yes indeed he was," said the young man.

"And do you actually put your head in the lion's mouth?" inquired the announcer.

"Only once," said the young man, "to look for Dad."

FAREWELL

The boss returned from a luncheon in a remarkably good humor. He called in his whole staff to listen to a couple of jokes he'd picked up. Everybody laughed uproariously at his stories, except his secretary.

"What's the matter?" he grumbled. "Where's your sense of humor?"

"I don't need one," answered his secretary. "I'm leaving Friday, anyhow."

IT FIGURES

Willie came home with a note from teacher explaining he had been put in the corner for putting mud in a little girl's mouth.

His mother was horrified. "Willie!" she cried. "Why on earth did you put mud in that girl's mouth?"

"Well," answered the boy, "it was open."

DOG DAZE

During a community drive to round up unlicensed dogs, a policeman whistled an automobile to the curb. When its driver asked why he had been stopped, the officer pointed to the dog on the seat beside him.

"Does your dog have a license?" he asked.

"Heavens no," the motorist replied. "Why should he? I do all the driving."

* * *

Don't always assume that the other person has equal intelligence, says the contemporary sage. He might have more.



WHAT! REZONE PARKINSON'S WOODS?

Yes, Ma'am.

Parkinson's Woods, an undeveloped parcel of property where your children sometimes play, will have to be rezoned to accommodate a new industry which is interested in your town.

"New industry", says the lady, unbelieving, "We don't want any old smokestacks in *our* part of town. Put 'em on gravel hill!"

The understandable—but misinformed—attitude of this young lady is one of the most difficult problems confronting the industrial and community official today. The problem is one of educating citizens to the needs of industry and the community for top-quality industrial property and the necessity for orderly planning and zoning. When a new zoning hearing comes up, there is almost always misunderstanding and confusion on the part of property owners who feel that they will be hurt.

Communities, firms and individuals who are confronted with this problem of "citizen education" now have a useful tool for its solution in the form of a new, 16mm full-color sound motion picture entitled:

"Blueprint For Progress"

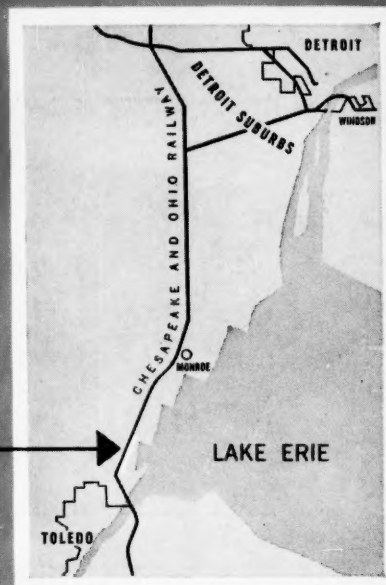
BLUEPRINT tells the whole story of Parkinson's Woods and how the citizens learned, step by step, the way the area had been planned for growth and how the community learned about the opportunities it offered them.

The film is *not* an industrial planner's training film. It is an interesting, dramatic story of what planning and zoning is, why it is vital for the orderly growth of any community and how Mr. and Mrs. Citizen can help their officials and industry map out a "blueprint for progress".

- BLUEPRINT FOR PROGRESS runs about 26 minutes and is cleared for television showing.
- Copies of BLUEPRINT are offered for sale at a price low enough for any community or firm to own one.
- We will be happy to send you a preview print at no obligation for your personal inspection. Please address your request to:

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